

## SEQUENCE LISTING

<110> John P. Carulli et al.

<120> THE HIGH BONE MASS GENE OF 11q13.3

<130> 032796-014

<150> US 09/229,319

<151> 1999-01-13

<150> US 60/071,449

<151> 1998-01-13

<150> US 60/105,511

<151> 1998-10-23

<160> 62

<210> 1

<211> 5120

<212> DNA

<213> Homo sapiens

<400> 1

```

actaaagcgc cgccgccgcg ccatggagcc cgagtgcgcg cggcgcgggc ccgtccggcc      60
gccggacaac  atg gag gca gcg ccg ccc ggg ccg ccg tgg ccg ctg ctg      109
          Met Glu Ala Ala Pro Pro Gly Pro Pro Trp Pro Leu Leu
                1                5                10
ctg ctg ctg ctg ctg ctg ctg gcg ctg tgc ggc tgc ccg gcc ccc gcc      157
Leu Leu Leu Leu Leu Leu Leu Ala Leu Cys Gly Cys Pro Ala Pro Ala
          15                20                25
gcg gcc tcg ccg ctc ctg cta ttt gcc aac cgc cgg gac gta cgg ctg      205
Ala Ala Ser Pro Leu Leu Leu Phe Ala Asn Arg Arg Asp Val Arg Leu
          30                35                40                45

```

gtg gac gcc ggc gga gtc aag ctg gag tcc acc atc gtg gtc agc ggc	253
Val Asp Ala Gly Gly Val Lys Leu Glu Ser Thr Ile Val Val Ser Gly	
50 55 60	
ctg gag gat gcg gcc gca gtg gac ttc cag ttt tcc aag gga gcc gtg	301
Leu Glu Asp Ala Ala Ala Val Asp Phe Gln Phe Ser Lys Gly Ala Val	
65 70 75	
tac tgg aca gac gtg agc gag gag gcc atc aag cag acc tac ctg aac	349
Tyr Trp Thr Asp Val Ser Glu Glu Ala Ile Lys Gln Thr Tyr Leu Asn	
80 85 90	
cag acg ggg gcc gcc gtg cag aac gtg gtc atc tcc ggc ctg gtc tct	397
Gln Thr Gly Ala Ala Val Gln Asn Val Val Ile Ser Gly Leu Val Ser	
95 100 105	
ccc gac ggc ctc gcc tgc gac tgg gtg ggc aag aag ctg tac tgg acg	445
Pro Asp Gly Leu Ala Cys Asp Trp Val Gly Lys Lys Leu Tyr Trp Thr	
110 115 120 125	
gac tca gag acc aac cgc atc gag gtg gcc aac ctc aat ggc aca tcc	493
Asp Ser Glu Thr Asn Arg Ile Glu Val Ala Asn Leu Asn Gly Thr Ser	
130 135 140	
cgg aag gtg ctc ttc tgg cag gac ctt gac cag ccg agg gcc atc gcc	541
Arg Lys Val Leu Phe Trp Gln Asp Leu Asp Gln Pro Arg Ala Ile Ala	
145 150 155	
ttg gac ccc gct cac ggg tac atg tac tgg aca gac tgg ggt gag acg	589
Leu Asp Pro Ala His Gly Tyr Met Tyr Trp Thr Asp Trp Gly Glu Thr	
160 165 170	
ccc cgg att gag cgg gca ggg atg gat ggc agc acc cgg aag atc att	637
Pro Arg Ile Glu Arg Ala Gly Met Asp Gly Ser Thr Arg Lys Ile Ile	
175 180 185	
gtg gac tcg gac att tac tgg ccc aat gga ctg acc atc gac ctg gag	685
Val Asp Ser Asp Ile Tyr Trp Pro Asn Gly Leu Thr Ile Asp Leu Glu	

190	195	200	205	
gag cag aag ctc tac tgg gct gac gcc aag ctc agc ttc atc cac cgt				733
Glu Gln Lys Leu Tyr Trp Ala Asp Ala Lys Leu Ser Phe Ile His Arg				
210	215	220		
gcc aac ctg gac ggc tcg ttc cgg cag aag gtg gtg gag ggc agc ctg				781
Ala Asn Leu Asp Gly Ser Phe Arg Gln Lys Val Val Glu Gly Ser Leu				
225	230	235		
acg cac ccc ttc gcc ctg acg ctc tcc ggg gac act ctg tac tgg aca				829
Thr His Pro Phe Ala Leu Thr Leu Ser Gly Asp Thr Leu Tyr Trp Thr				
240	245	250		
gac tgg cag acc cgc tcc atc cat gcc tgc aac aag cgc act ggg ggg				877
Asp Trp Gln Thr Arg Ser Ile His Ala Cys Asn Lys Arg Thr Gly Gly				
255	260	265		
aag agg aag gag atc ctg agt gcc ctc tac tca ccc atg gac atc cag				925
Lys Arg Lys Glu Ile Leu Ser Ala Leu Tyr Ser Pro Met Asp Ile Gln				
270	275	280	285	
gtg ctg agc cag gag cgg cag cct ttc ttc cac act cgc tgt gag gag				973
Val Leu Ser Gln Glu Arg Gln Pro Phe Phe His Thr Arg Cys Glu Glu				
290	295	300		
gac aat ggc ggc tgc tcc cac ctg tgc ctg ctg tcc cca agc gag cct				1021
Asp Asn Gly Gly Cys Ser His Leu Cys Leu Leu Ser Pro Ser Glu Pro				
305	310	315		
ttc tac aca tgc gcc tgc ccc acg ggt gtg cag ctg cag gac aac ggc				1069
Phe Tyr Thr Cys Ala Cys Pro Thr Gly Val Gln Leu Gln Asp Asn Gly				
320	325	330		
agg acg tgt aag gca gga gcc gag gag gtg ctg ctg ctg gcc cgg cgg				1117
Arg Thr Cys Lys Ala Gly Ala Glu Glu Val Leu Leu Leu Ala Arg Arg				
335	340	345		
acg gac cta cgg agg atc tcg ctg gac acg ccg gac ttc acc gac atc				1165

Thr Asp Leu Arg Arg Ile Ser Leu Asp Thr Pro Asp Phe Thr Asp Ile	
350	365
gtg ctg cag gtg gac gac atc cgg cac gcc att gcc atc gac tac gac	1213
Val Leu Gln Val Asp Asp Ile Arg His Ala Ile Ala Ile Asp Tyr Asp	
370	380
cgc cta gag ggc tat gtc tac tgg aca gat gac gag gtg cgg gcc atc	1261
Pro Leu Glu Gly Tyr Val Tyr Trp Thr Asp Asp Glu Val Arg Ala Ile	
385	395
cgc agg gcg tac ctg gac ggg tct ggg gcg cag acg ctg gtc aac acc	1309
Arg Arg Ala Tyr Leu Asp Gly Ser Gly Ala Gln Thr Leu Val Asn Thr	
400	410
gag atc aac gac ccc gat ggc atc gcg gtc gac tgg gtg gcc cga aac	1357
Glu Ile Asn Asp Pro Asp Gly Ile Ala Val Asp Trp Val Ala Arg Asn	
415	425
ctc tac tgg acc gac acg ggc acg gac cgc atc gag gtg acg cgc ctc	1405
Leu Tyr Trp Thr Asp Thr Gly Thr Asp Arg Ile Glu Val Thr Arg Leu	
430	440
aac ggc acc tcc cgc aag atc ctg gtg tcg gag gac ctg gac gag ccc	1453
Asn Gly Thr Ser Arg Lys Ile Leu Val Ser Glu Asp Leu Asp Glu Pro	
450	460
cga gcc atc gca ctg cac ccc gtg atg ggc ctc atg tac tgg aca gac	1501
Arg Ala Ile Ala Leu His Pro Val Met Gly Leu Met Tyr Trp Thr Asp	
465	475
tgg gga gag aac cct aaa atc gag tgt gcc aac ttg gat ggg cag gag	1549
Trp Gly Glu Asn Pro Lys Ile Glu Cys Ala Asn Leu Asp Gly Gln Glu	
480	490
cgg cgt gtg ctg gtc aat gcc tcc ctc ggg tgg ccc aac ggc ctg gcc	1597
Arg Arg Val Leu Val Asn Ala Ser Leu Gly Trp Pro Asn Gly Leu Ala	
495	505



[illegible]

655	660	665	
ccg ctc acg ggc gtc aag gag gcc tca gcc ctg gac ttt gat gtg tcc			2125
Pro Leu Thr Gly Val Lys Glu Ala Ser Ala Leu Asp Phe Asp Val Ser			
670	675	680	685
aac aac cac atc tac tgg aca gac gtc agc ctg aag acc atc agc cgc			2173
Asn Asn His Ile Tyr Trp Thr Asp Val Ser Leu Lys Thr Ile Ser Arg			
690	695	700	
gcc ttc atg aac ggg agc tcg gtg gag cac gtg gtg gag ttt ggc ctt			2221
Ala Phe Met Asn Gly Ser Ser Val Glu His Val Val Glu Phe Gly Leu			
705	710	715	
gac tac ccc gag ggc atg gcc gtt gac tgg atg ggc aag aac ctc tac			2269
Asp Tyr Pro Glu Gly Met Ala Val Asp Trp Met Gly Lys Asn Leu Tyr			
720	725	730	
tgg gcc gac act ggg acc aac aga atc gaa gtg gcg cgg ctg gac ggg			2317
Trp Ala Asp Thr Gly Thr Asn Arg Ile Glu Val Ala Arg Leu Asp Gly			
735	740	745	
cag ttc cgg caa gtc ctc gtg tgg agg gac ttg gac aac ccg agg tcg			2365
Gln Phe Arg Gln Val Leu Val Trp Arg Asp Leu Asp Asn Pro Arg Ser			
750	755	760	765
ctg gcc ctg gat ccc acc aag ggc tac atc tac tgg acc gag tgg ggc			2413
Leu Ala Leu Asp Pro Thr Lys Gly Tyr Ile Tyr Trp Thr Glu Trp Gly			
770	775	780	
ggc aag ccg agg atc gtg cgg gcc ttc atg gac ggg acc aac tgc atg			2461
Gly Lys Pro Arg Ile Val Arg Ala Phe Met Asp Gly Thr Asn Cys Met			
785	790	795	
acg ctg gtg gac aag gtg ggc cgg gcc aac gac ctc acc att gac tac			2509
Thr Leu Val Asp Lys Val Gly Arg Ala Asn Asp Leu Thr Ile Asp Tyr			
800	805	810	
gct gac cag cgc ctc tac tgg acc gac ctg gac acc aac atg atc gag			2557



cat gga ctg agg aac gtc aaa gcc atc gac tat gac cca ctg gac aag	3037
His Gly Leu Arg Asn Val Lys Ala Ile Asp Tyr Asp Pro Leu Asp Lys	
975 980 985	
ttc atc tac tgg gtg gat ggg cgc cag aac atc aag cga gcc aag gac	3085
Phe Ile Tyr Trp Val Asp Gly Arg Gln Asn Ile Lys Arg Ala Lys Asp	
990 995 1000 1005	
gac ggg acc cag ccc ttt gtt ttg acc tct ctg agc caa ggc caa aac	3133
Asp Gly Thr Gln Pro Phe Val Leu Thr Ser Leu Ser Gln Gly Gln Asn	
1010 1015 1020	
cca gac agg cag ccc cac gac ctc agc atc gac atc tac agc cgg aca	3181
Pro Asp Arg Gln Pro His Asp Leu Ser Ile Asp Ile Tyr Ser Arg Thr	
1025 1030 1035	
ctg ttc tgg acg tgc gag gcc acc aat acc atc aac gtc cac agg ctg	3229
Leu Phe Trp Thr Cys Glu Ala Thr Asn Thr Ile Asn Val His Arg Leu	
1040 1045 1050	
agc ggg gaa gcc atg ggg gtg gtg ctg cgt ggg gac cgc gac aag ccc	3277
Ser Gly Glu Ala Met Gly Val Val Leu Arg Gly Asp Arg Asp Lys Pro	
1055 1060 1065	
agg gcc atc gtc gtc aac gcg gag cga ggg tac ctg tac ttc acc aac	3325
Arg Ala Ile Val Val Asn Ala Glu Arg Gly Tyr Leu Tyr Phe Thr Asn	
1070 1075 1080 1085	
atg cag gac cgg gca gcc aag atc gaa cgc gca gcc ctg gac ggc acc	3373
Met Gln Asp Arg Ala Ala Lys Ile Glu Arg Ala Ala Leu Asp Gly Thr	
1090 1095 1100	
gag cgc gag gtc ctc ttc acc acc ggc ctc atc cgc cct gtg gcc ctg	3421
Glu Arg Glu Val Leu Phe Thr Thr Gly Leu Ile Arg Pro Val Ala Leu	
1105 1110 1115	
gtg gtg gac aac aca ctg ggc aag ctg ttc tgg gtg gac gcg gac ctg	3469
Val Val Asp Asn Thr Leu Gly Lys Leu Phe Trp Val Asp Ala Asp Leu	

1120	1125	1130	
aag cgc att gag agc tgt gac ctg tca ggg gcc aac cgc ctg acc ctg			3517
Lys Arg Ile Glu Ser Cys Asp Leu Ser Gly Ala Asn Arg Leu Thr Leu			
1135	1140	1145	
gag gac gcc aac atc gtg cag cct ctg ggc ctg acc atc ctt ggc aag			3565
Glu Asp Ala Asn Ile Val Gln Pro Leu Gly Leu Thr Ile Leu Gly Lys			
1150	1155	1160	1165
cat ctc tac tgg atc gac cgc cag cag cag atg atc gag cgt gtg gag			3613
His Leu Tyr Trp Ile Asp Arg Gln Gln Gln Met Ile Glu Arg Val Glu			
	1170	1175	1180
aag acc acc ggg gac aag cgg act cgc atc cag ggc cgt gtc gcc cac			3661
Lys Thr Thr Gly Asp Lys Arg Thr Arg Ile Gln Gly Arg Val Ala His			
	1185	1190	1195
ctc act ggc atc cat gca gtg gag gaa gtc agc ctg gag gag ttc tca			3709
Leu Thr Gly Ile His Ala Val Glu Glu Val Ser Leu Glu Glu Phe Ser			
1200	1205	1210	
gcc cac cca tgt gcc cgt gac aat ggt ggc tgc tcc cac atc tgt att			3757
Ala His Pro Cys Ala Arg Asp Asn Gly Gly Cys Ser His Ile Cys Ile			
1215	1220	1225	
gcc aag ggt gat ggg aca cca cgg tgc tca tgc cca gtc cac ctc gtg			3805
Ala Lys Gly Asp Gly Thr Pro Arg Cys Ser Cys Pro Val His Leu Val			
1230	1235	1240	1245
ctc ctg cag aac ctg ctg acc tgt gga gag ccg ccc acc tgc tcc ccg			3853
Leu Leu Gln Asn Leu Leu Thr Cys Gly Glu Pro Pro Thr Cys Ser Pro			
	1250	1255	1260
gac cag ttt gca tgt gcc aca ggg gag atc gac tgt atc ccc ggg gcc			3901
Asp Gln Phe Ala Cys Ala Thr Gly Glu Ile Asp Cys Ile Pro Gly Ala			
	1265	1270	1275
tgg cgc tgt gac ggc ttt ccc gag tgc gat gac cag agc gac gag gag			3949

Trp Arg Cys Asp Gly Phe Pro Glu Cys Asp Asp Gln Ser Asp Glu Glu	
1280	1285
ggc tgc ccc gtg tgc tcc gcc gcc cag ttc ccc tgc gcg cgg ggt cag	3997
Gly Cys Pro Val Cys Ser Ala Ala Gln Phe Pro Cys Ala Arg Gly Gln	
1295	1300
tgt gtg gac ctg cgc ctg cgc tgc gac ggc gag gca gac tgt cag gac	4045
Cys Val Asp Leu Arg Leu Arg Cys Asp Gly Glu Ala Asp Cys Gln Asp	
1310	1315
cgc tca gac gag gtg gac tgt gac gcc atc tgc ctg ccc aac cag ttc	4093
Arg Ser Asp Glu Val Asp Cys Asp Ala Ile Cys Leu Pro Asn Gln Phe	
1330	1335
cgg tgt gcg agc ggc cag tgt gtc ctc atc aaa cag cag tgc gac tcc	4141
Arg Cys Ala Ser Gly Gln Cys Val Leu Ile Lys Gln Gln Cys Asp Ser	
1345	1350
ttc ccc gac tgt atc gac ggc tcc gac gag ctc atg tgt gaa atc acc	4189
Phe Pro Asp Cys Ile Asp Gly Ser Asp Glu Leu Met Cys Glu Ile Thr	
1360	1365
aag ccg ccc tca gac gac agc ccg gcc cac agc agt gcc atc ggg ccc	4237
Lys Pro Pro Ser Asp Asp Ser Pro Ala His Ser Ser Ala Ile Gly Pro	
1375	1380
gtc att ggc atc atc ctc tct ctc ttc gtc atg ggt ggt gtc tat ttt	4285
Val Ile Gly Ile Ile Leu Ser Leu Phe Val Met Gly Gly Val Tyr Phe	
1390	1395
gtg tgc cag cgc gtg gtg tgc cag cgc tat gcg ggg gcc aac ggg ccc	4333
Val Cys Gln Arg Val Val Cys Gln Arg Tyr Ala Gly Ala Asn Gly Pro	
1410	1415
ttc ccg cac gag tat gtc agc ggg acc ccg cac gtg ccc ctc aat ttc	4381
Phe Pro His Glu Tyr Val Ser Gly Thr Pro His Val Pro Leu Asn Phe	
1425	1430
	1435

ata gcc ccg ggc ggt tcc cag cat ggc ccc ttc aca ggc atc gca tgc	4429
Ile Ala Pro Gly Gly Ser Gln His Gly Pro Phe Thr Gly Ile Ala Cys	
1440 1445 1450	
gga aag tcc atg atg agc tcc gtg agc ctg atg ggg ggc cgg ggc ggg	4477
Gly Lys Ser Met Met Ser Ser Val Ser Leu Met Gly Gly Arg Gly Gly	
1455 1460 1465	
gtg ccc ctc tac gac cgg aac cac gtc aca ggg gcc tcg tcc agc agc	4525
Val Pro Leu Tyr Asp Arg Asn His Val Thr Gly Ala Ser Ser Ser Ser	
1470 1475 1480 1485	
tcg tcc agc acg aag gcc acg ctg tac ccg ccg atc ctg aac ccg ccg	4573
Ser Ser Ser Thr Lys Ala Thr Leu Tyr Pro Pro Ile Leu Asn Pro Pro	
1490 1495 1500	
ccc tcc ccg gcc acg gac ccc tcc ctg tac aac atg gac atg ttc tac	4621
Pro Ser Pro Ala Thr Asp Pro Ser Leu Tyr Asn Met Asp Met Phe Tyr	
1505 1510 1515	
tct tca aac att ccg gcc act gcg aga ccg tac agg ccc tac atc att	4669
Ser Ser Asn Ile Pro Ala Thr Ala Arg Pro Tyr Arg Pro Tyr Ile Ile	
1520 1525 1530	
cga gga atg gcg ccc ccg acg acg ccc tgc agc acc gac gtg tgt gac	4717
Arg Gly Met Ala Pro Pro Thr Thr Pro Cys Ser Thr Asp Val Cys Asp	
1535 1540 1545	
agc gac tac agc gcc agc cgc tgg aag gcc agc aag tac tac ctg gat	4765
Ser Asp Tyr Ser Ala Ser Arg Trp Lys Ala Ser Lys Tyr Tyr Leu Asp	
1550 1555 1560 1565	
ttg aac tcg gac tca gac ccc tat cca ccc cca ccc acg ccc cac agc	4813
Leu Asn Ser Asp Ser Asp Pro Tyr Pro Pro Pro Thr Pro His Ser	
1570 1575 1580	
cag tac ctg tcg gcg gag gac agc tgc ccg ccc tcg ccc gcc acc gag	4861
Gln Tyr Leu Ser Ala Glu Asp Ser Cys Pro Pro Ser Pro Ala Thr Glu	

1585	1590	1595	
agg agc tac ttc cat ctc ttc ccg ccc cct ccg tcc ccc tgc acg gac			4909
Arg Ser Tyr Phe His Leu Phe Pro Pro Pro Pro Ser Pro Cys Thr Asp			
1600	1605	1610	
tca tcc tgacctcggc cgggccactc tggcttctct gtgccccctgt aaatagtttt			4965
Ser Ser			
1615			
aaatatgaac aaagaaaaaa atatatttta tgatttaaaa aataaatata attgggattt			5025
taaaaacatg agaaatgtga actgtgatgg ggtgggcagg gctgggagaa ctttgtacag			5085
tggagaaata ttataaaact taattttgta aaaca			5120
<210> 2			
<211> 5120			
<212> DNA			
<213> Homo sapiens			
<400> 2			
actaaagcgc cgccgccgcg ccatggagcc cgagtgcgcg cggcgcgggc ccgtccggcc			60
gccggacaac atg gag gca gcg ccg ccc ggg ccg ccg tgg ccg ctg ctg			109
Met Glu Ala Ala Pro Pro Gly Pro Pro Trp Pro Leu Leu			
1	5	10	
ctg ctg ctg ctg ctg ctg gcg ctg tgc ggc tgc ccg gcc ccc gcc			157
Leu Leu Leu Leu Leu Leu Leu Ala Leu Cys Gly Cys Pro Ala Pro Ala			
15	20	25	
gcg gcc tcg ccg ctc ctg cta ttt gcc aac cgc cgg gac gta cgg ctg			205
Ala Ala Ser Pro Leu Leu Leu Phe Ala Asn Arg Arg Asp Val Arg Leu			
30	35	40	45
gtg gac gcc ggc gga gtc aag ctg gag tcc acc atc gtg gtc agc ggc			253
Val Asp Ala Gly Gly Val Lys Leu Glu Ser Thr Ile Val Val Ser Gly			



50	55	60	
ctg gag gat gcg gcc gca gtg gac ttc cag ttt tcc aag gga gcc gtg			301
Leu Glu Asp Ala Ala Ala Val Asp Phe Gln Phe Ser Lys Gly Ala Val			
65	70	75	
tac tgg aca gac gtg agc gag gag gcc atc aag cag acc tac ctg aac			349
Tyr Trp Thr Asp Val Ser Glu Glu Ala Ile Lys Gln Thr Tyr Leu Asn			
80	85	90	
cag acg ggg gcc gcc gtg cag aac gtg gtc atc tcc ggc ctg gtc tct			397
Gln Thr Gly Ala Ala Val Gln Asn Val Val Ile Ser Gly Leu Val Ser			
95	100	105	
ccc gac ggc ctc gcc tgc gac tgg gtg ggc aag aag ctg tac tgg acg			445
Pro Asp Gly Leu Ala Cys Asp Trp Val Gly Lys Lys Leu Tyr Trp Thr			
110	115	120	125
gac tca gag acc aac cgc atc gag gtg gcc aac ctc aat ggc aca tcc			493
Asp Ser Glu Thr Asn Arg Ile Glu Val Ala Asn Leu Asn Gly Thr Ser			
130	135	140	
cgg aag gtg ctc ttc tgg cag gac ctt gac cag ccg agg gcc atc gcc			541
Arg Lys Val Leu Phe Trp Gln Asp Leu Asp Gln Pro Arg Ala Ile Ala			
145	150	155	
ttg gac ccc gct cac ggg tac atg tac tgg aca gac tgg gtt gag acg			589
Leu Asp Pro Ala His Gly Tyr Met Tyr Trp Thr Asp Trp Val Glu Thr			
160	165	170	
ccc cgg att gag cgg gca ggg atg gat ggc agc acc cgg aag atc att			637
Pro Arg Ile Glu Arg Ala Gly Met Asp Gly Ser Thr Arg Lys Ile Ile			
175	180	185	
gtg gac tcg gac att tac tgg ccc aat gga ctg acc atc gac ctg gag			685
Val Asp Ser Asp Ile Tyr Trp Pro Asn Gly Leu Thr Ile Asp Leu Glu			
190	195	200	205
gag cag aag ctc tac tgg gct gac gcc aag ctc agc ttc atc cac cgt			733

Glu Gln Lys Leu Tyr Trp Ala Asp Ala Lys Leu Ser Phe Ile His Arg	
210	215
220	
gcc aac ctg gac ggc tcg ttc cgg cag aag gtg gtg gag ggc agc ctg	781
Ala Asn Leu Asp Gly Ser Phe Arg Gln Lys Val Val Glu Gly Ser Leu	
225	230
235	
acg cac ccc ttc gcc ctg acg ctc tcc ggg gac act ctg tac tgg aca	829
Thr His Pro Phe Ala Leu Thr Leu Ser Gly Asp Thr Leu Tyr Trp Thr	
240	245
250	
gac tgg cag acc cgc tcc atc cat gcc tgc aac aag cgc act ggg ggg	877
Asp Trp Gln Thr Arg Ser Ile His Ala Cys Asn Lys Arg Thr Gly Gly	
255	260
265	
aag agg aag gag atc ctg agt gcc ctc tac tca ccc atg gac atc cag	925
Lys Arg Lys Glu Ile Leu Ser Ala Leu Tyr Ser Pro Met Asp Ile Gln	
270	275
280	285
gtg ctg agc cag gag cgg cag cct ttc ttc cac act cgc tgt gag gag	973
Val Leu Ser Gln Glu Arg Gln Pro Phe Phe His Thr Arg Cys Glu Glu	
290	295
300	
gac aat ggc ggc tgc tcc cac ctg tgc ctg ctg tcc cca agc gag cct	1021
Asp Asn Gly Gly Cys Ser His Leu Cys Leu Leu Ser Pro Ser Glu Pro	
305	310
315	
ttc tac aca tgc gcc tgc ccc acg ggt gtg cag ctg cag gac aac ggc	1069
Phe Tyr Thr Cys Ala Cys Pro Thr Gly Val Gln Leu Gln Asp Asn Gly	
320	325
330	
agg acg tgt aag gca gga gcc gag gag gtg ctg ctg ctg gcc cgg cgg	1117
Arg Thr Cys Lys Ala Gly Ala Glu Glu Val Leu Leu Leu Ala Arg Arg	
335	340
345	
acg gac cta cgg agg atc tcg ctg gac acg ccg gac ttc acc gac atc	1165
Thr Asp Leu Arg Arg Ile Ser Leu Asp Thr Pro Asp Phe Thr Asp Ile	
350	355
360	365

gtg ctg cag gtg gac gac atc cgg cac gcc att gcc atc gac tac gac	1213
Val Leu Gln Val Asp Asp Ile Arg His Ala Ile Ala Ile Asp Tyr Asp	
370 375 380	
ccg cta gag ggc tat gtc tac tgg aca gat gac gag gtg cgg gcc atc	1261
Pro Leu Glu Gly Tyr Val Tyr Trp Thr Asp Asp Glu Val Arg Ala Ile	
385 390 395	
cgc agg gcg tac ctg gac ggg tct ggg gcg cag acg ctg gtc aac acc	1309
Arg Arg Ala Tyr Leu Asp Gly Ser Gly Ala Gln Thr Leu Val Asn Thr	
400 405 410	
gag atc aac gac ccc gat ggc atc gcg gtc gac tgg gtg gcc cga aac	1357
Glu Ile Asn Asp Pro Asp Gly Ile Ala Val Asp Trp Val Ala Arg Asn	
415 420 425	
ctc tac tgg acc gac acg ggc acg gac cgc atc gag gtg acg cgc ctc	1405
Leu Tyr Trp Thr Asp Thr Gly Thr Asp Arg Ile Glu Val Thr Arg Leu	
430 435 440 445	
aac ggc acc tcc cgc aag atc ctg gtg tcg gag gac ctg gac gag ccc	1453
Asn Gly Thr Ser Arg Lys Ile Leu Val Ser Glu Asp Leu Asp Glu Pro	
450 455 460	
cga gcc atc gca ctg cac ccc gtg atg ggc ctc atg tac tgg aca gac	1501
Arg Ala Ile Ala Leu His Pro Val Met Gly Leu Met Tyr Trp Thr Asp	
465 470 475	
tgg gga gag aac cct aaa atc gag tgt gcc aac ttg gat ggg cag gag	1549
Trp Gly Glu Asn Pro Lys Ile Glu Cys Ala Asn Leu Asp Gly Gln Glu	
480 485 490	
cgg cgt gtg ctg gtc aat gcc tcc ctc ggg tgg ccc aac ggc ctg gcc	1597
Arg Arg Val Leu Val Asn Ala Ser Leu Gly Trp Pro Asn Gly Leu Ala	
495 500 505	
ctg gac ctg cag gag ggg aag ctc tac tgg gga gac gcc aag aca gac	1645
Leu Asp Leu Gln Glu Gly Lys Leu Tyr Trp Gly Asp Ala Lys Thr Asp	

510	515	520	525	
aag atc gag gtg atc aat gtt gat ggg acg aag agg cgg acc ctc ctg				1693
Lys Ile Glu Val Ile Asn Val Asp Gly Thr Lys Arg Arg Thr Leu Leu				
	530	535	540	
	gag gac aag ctc ccg cac att ttc ggg ttc acg ctg ctg ggg gac ttc			1741
	Glu Asp Lys Leu Pro His Ile Phe Gly Phe Thr Leu Leu Gly Asp Phe			
	545	550	555	
	atc tac tgg act gac tgg cag cgc cgc agc atc gag cgg gtg cac aag			1789
	Ile Tyr Trp Thr Asp Trp Gln Arg Arg Ser Ile Glu Arg Val His Lys			
	560	565	570	
	gtc aag gcc agc cgg gac gtc atc att gac cag ctg ccc gac ctg atg			1837
	Val Lys Ala Ser Arg Asp Val Ile Ile Asp Gln Leu Pro Asp Leu Met			
	575	580	585	
	ggg ctc aaa gct gtg aat gtg gcc aag gtc gtc gga acc aac ccg tgt			1885
	Gly Leu Lys Ala Val Asn Val Ala Lys Val Val Gly Thr Asn Pro Cys			
590	595	600	605	
gcg gac agg aac ggg ggg tgc agc cac ctg tgc ttc ttc aca ccc cac				1933
Ala Asp Arg Asn Gly Gly Cys Ser His Leu Cys Phe Phe Thr Pro His				
	610	615	620	
	gca acc cgg tgt ggc tgc ccc atc ggc ctg gag ctg ctg agt gac atg			1981
	Ala Thr Arg Cys Gly Cys Pro Ile Gly Leu Glu Leu Leu Ser Asp Met			
	625	630	635	
	aag acc tgc atc gtg cct gag gcc ttc ttg gtc ttc acc agc aga gcc			2029
	Lys Thr Cys Ile Val Pro Glu Ala Phe Leu Val Phe Thr Ser Arg Ala			
	640	645	650	
	gcc atc cac agg atc tcc ctc gag acc aat aac aac gac gtg gcc atc			2077
	Ala Ile His Arg Ile Ser Leu Glu Thr Asn Asn Asn Asp Val Ala Ile			
	655	660	665	
	ccg ctc acg ggc gtc aag gag gcc tca gcc ctg gac ttt gat gtg tcc			2125

Pro	Leu	Thr	Gly	Val	Lys	Glu	Ala	Ser	Ala	Leu	Asp	Phe	Asp	Val	Ser		
670					675					680					685		
aac	aac	cac	atc	tac	tgg	aca	gac	gtc	agc	ctg	aag	acc	atc	agc	cgc	2173	
Asn	Asn	His	Ile	Tyr	Trp	Thr	Asp	Val	Ser	Leu	Lys	Thr	Ile	Ser	Arg		
				690					695						700		
gcc	ttc	atg	aac	ggg	agc	tcg	gtg	gag	cac	gtg	gtg	gag	ttt	ggc	ctt	2221	
Ala	Phe	Met	Asn	Gly	Ser	Ser	Val	Glu	His	Val	Val	Glu	Phe	Gly	Leu		
			705					710					715				
gac	tac	ccc	gag	ggc	atg	gcc	gtt	gac	tgg	atg	ggc	aag	aac	ctc	tac	2269	
Asp	Tyr	Pro	Glu	Gly	Met	Ala	Val	Asp	Trp	Met	Gly	Lys	Asn	Leu	Tyr		
		720					725					730					
tgg	gcc	gac	act	ggg	acc	aac	aga	atc	gaa	gtg	gcg	cgg	ctg	gac	ggg	2317	
Trp	Ala	Asp	Thr	Gly	Thr	Asn	Arg	Ile	Glu	Val	Ala	Arg	Leu	Asp	Gly		
	735					740					745						
cag	ttc	cgg	caa	gtc	ctc	gtg	tgg	agg	gac	ttg	gac	aac	ccg	agg	tcg	2365	
Gln	Phe	Arg	Gln	Val	Leu	Val	Trp	Arg	Asp	Leu	Asp	Asn	Pro	Arg	Ser		
750					755					760					765		
ctg	gcc	ctg	gat	ccc	acc	aag	ggc	tac	atc	tac	tgg	acc	gag	tgg	ggc	2413	
Leu	Ala	Leu	Asp	Pro	Thr	Lys	Gly	Tyr	Ile	Tyr	Trp	Thr	Glu	Trp	Gly		
			770						775				780				
ggc	aag	ccg	agg	atc	gtg	cgg	gcc	ttc	atg	gac	ggg	acc	aac	tgc	atg	2461	
Gly	Lys	Pro	Arg	Ile	Val	Arg	Ala	Phe	Met	Asp	Gly	Thr	Asn	Cys	Met		
		785						790					795				
acg	ctg	gtg	gac	aag	gtg	ggc	cgg	gcc	aac	gac	ctc	acc	att	gac	tac	2509	
Thr	Leu	Val	Asp	Lys	Val	Gly	Arg	Ala	Asn	Asp	Leu	Thr	Ile	Asp	Tyr		
		800						805					810				
gct	gac	cag	cgc	ctc	tac	tgg	acc	gac	ctg	gac	acc	aac	atg	atc	gag	2557	
Ala	Asp	Gln	Arg	Leu	Tyr	Trp	Thr	Asp	Leu	Asp	Thr	Asn	Met	Ile	Glu		
815						820						825					

tcg tcc aac atg ctg ggt cag gag cgg gtc gtg att gcc gac gat ctc	2605
Ser Ser Asn Met Leu Gly Gln Glu Arg Val Val Ile Ala Asp Asp Leu	
830                      835                      840                      845	
ccg cac ccg ttc ggt ctg acg cag tac agc gat tat atc tac tgg aca	2653
Pro His Pro Phe Gly Leu Thr Gln Tyr Ser Asp Tyr Ile Tyr Trp Thr	
850                      855                      860	
gac tgg aat ctg cac agc att gag cgg gcc gac aag act agc ggc cgg	2701
Asp Trp Asn Leu His Ser Ile Glu Arg Ala Asp Lys Thr Ser Gly Arg	
865                      870                      875	
aac cgc acc ctc atc cag ggc cac ctg gac ttc gtg atg gac atc ctg	2749
Asn Arg Thr Leu Ile Gln Gly His Leu Asp Phe Val Met Asp Ile Leu	
880                      885                      890	
gtg ttc cac tcc tcc cgc cag gat ggc ctc aat gac tgt atg cac aac	2797
Val Phe His Ser Ser Arg Gln Asp Gly Leu Asn Asp Cys Met His Asn	
895                      900                      905	
aac ggg cag tgt ggg cag ctg tgc ctt gcc atc ccc ggc ggc cac cgc	2845
Asn Gly Gln Cys Gly Gln Leu Cys Leu Ala Ile Pro Gly Gly His Arg	
910                      915                      920                      925	
tgc ggc tgc gcc tca cac tac acc ctg gac ccc agc agc cgc aac tgc	2893
Cys Gly Cys Ala Ser His Tyr Thr Leu Asp Pro Ser Ser Arg Asn Cys	
930                      935                      940	
agc ccg ccc acc acc ttc ttg ctg ttc agc cag aaa tct gcc atc agt	2941
Ser Pro Pro Thr Thr Phe Leu Leu Phe Ser Gln Lys Ser Ala Ile Ser	
945                      950                      955	
cgg atg atc ccg gac gac cag cac agc ccg gat ctc atc ctg ccc ctg	2989
Arg Met Ile Pro Asp Asp Gln His Ser Pro Asp Leu Ile Leu Pro Leu	
960                      965                      970	
cat gga ctg agg aac gtc aaa gcc atc gac tat gac cca ctg gac aag	3037
His Gly Leu Arg Asn Val Lys Ala Ile Asp Tyr Asp Pro Leu Asp Lys	

975	980	985	
ttc atc tac tgg gtg gat ggg cgc cag aac atc aag cga gcc aag gac			3085
Phe Ile Tyr Trp Val Asp Gly Arg Gln Asn Ile Lys Arg Ala Lys Asp			
990	995	1000	1005
gac ggg acc cag ccc ttt gtt ttg acc tct ctg agc caa ggc caa aac			3133
Asp Gly Thr Gln Pro Phe Val Leu Thr Ser Leu Ser Gln Gly Gln Asn			
	1010	1015	1020
cca gac agg cag ccc cac gac ctc agc atc gac atc tac agc cgg aca			3181
Pro Asp Arg Gln Pro His Asp Leu Ser Ile Asp Ile Tyr Ser Arg Thr			
	1025	1030	1035
ctg ttc tgg acg tgc gag gcc acc aat acc atc aac gtc cac agg ctg			3229
Leu Phe Trp Thr Cys Glu Ala Thr Asn Thr Ile Asn Val His Arg Leu			
	1040	1045	1050
agc ggg gaa gcc atg ggg gtg gtg ctg cgt ggg gac cgc gac aag ccc			3277
Ser Gly Glu Ala Met Gly Val Val Leu Arg Gly Asp Arg Asp Lys Pro			
	1055	1060	1065
agg gcc atc gtc gtc aac gcg gag cga ggg tac ctg tac ttc acc aac			3325
Arg Ala Ile Val Val Asn Ala Glu Arg Gly Tyr Leu Tyr Phe Thr Asn			
1070	1075	1080	1085
atg cag gac cgg gca gcc aag atc gaa cgc gca gcc ctg gac ggc acc			3373
Met Gln Asp Arg Ala Ala Lys Ile Glu Arg Ala Ala Leu Asp Gly Thr			
	1090	1095	1100
gag cgc gag gtc ctc ttc acc acc ggc ctc atc cgc cct gtg gcc ctg			3421
Glu Arg Glu Val Leu Phe Thr Thr Gly Leu Ile Arg Pro Val Ala Leu			
	1105	1110	1115
gtg gtg gac aac aca ctg ggc aag ctg ttc tgg gtg gac gcg gac ctg			3469
Val Val Asp Asn Thr Leu Gly Lys Leu Phe Trp Val Asp Ala Asp Leu			
	1120	1125	1130
aag cgc att gag agc tgt gac ctg tca ggg gcc aac cgc ctg acc ctg			3517

Lys Arg Ile Glu Ser Cys Asp Leu Ser Gly Ala Asn Arg Leu Thr Leu  
 1135 1140 1145  
 gag gac gcc aac atc gtg cag cct ctg ggc ctg acc atc ctt ggc aag 3565  
 Glu Asp Ala Asn Ile Val Gln Pro Leu Gly Leu Thr Ile Leu Gly Lys  
 1150 1155 1160 1165  
 cat ctc tac tgg atc gac cgc cag cag cag atg atc gag cgt gtg gag 3613  
 His Leu Tyr Trp Ile Asp Arg Gln Gln Gln Met Ile Glu Arg Val Glu  
 1170 1175 1180  
 aag acc acc ggg gac aag cgg act cgc atc cag ggc cgt gtc gcc cac 3661  
 Lys Thr Thr Gly Asp Lys Arg Thr Arg Ile Gln Gly Arg Val Ala His  
 1185 1190 1195  
 ctc act ggc atc cat gca gtg gag gaa gtc agc ctg gag gag ttc tca 3709  
 Leu Thr Gly Ile His Ala Val Glu Glu Val Ser Leu Glu Glu Phe Ser  
 1200 1205 1210  
 gcc cac cca tgt gcc cgt gac aat ggt ggc tgc tcc cac atc tgt att 3757  
 Ala His Pro Cys Ala Arg Asp Asn Gly Gly Cys Ser His Ile Cys Ile  
 1215 1220 1225  
 gcc aag ggt gat ggg aca cca cgg tgc tca tgc cca gtc cac ctc gtg 3805  
 Ala Lys Gly Asp Gly Thr Pro Arg Cys Ser Cys Pro Val His Leu Val  
 1230 1235 1240 1245  
 ctc ctg cag aac ctg ctg acc tgt gga gag ccg ccc acc tgc tcc ccg 3853  
 Leu Leu Gln Asn Leu Leu Thr Cys Gly Glu Pro Pro Thr Cys Ser Pro  
 1250 1255 1260  
 gac cag ttt gca tgt gcc aca ggg gag atc gac tgt atc ccc ggg gcc 3901  
 Asp Gln Phe Ala Cys Ala Thr Gly Glu Ile Asp Cys Ile Pro Gly Ala  
 1265 1270 1275  
 tgg cgc tgt gac ggc ttt ccc gag tgc gat gac cag agc gac gag gag 3949  
 Trp Arg Cys Asp Gly Phe Pro Glu Cys Asp Asp Gln Ser Asp Glu Glu  
 1280 1285 1290



ggc tgc ccc gtg tgc tcc gcc gcc cag ttc ccc tgc gcg cgg ggt cag	3997
Gly Cys Pro Val Cys Ser Ala Ala Gln Phe Pro Cys Ala Arg Gly Gln	
1295 1300 1305	
tgt gtg gac ctg cgc ctg cgc tgc gac ggc gag gca gac tgt cag gac	4045
Cys Val Asp Leu Arg Leu Arg Cys Asp Gly Glu Ala Asp Cys Gln Asp	
1310 1315 1320 1325	
cgc tca gac gag gtg gac tgt gac gcc atc tgc ctg ccc aac cag ttc	4093
Arg Ser Asp Glu Val Asp Cys Asp Ala Ile Cys Leu Pro Asn Gln Phe	
1330 1335 1340	
cgg tgt gcg agc ggc cag tgt gtc ctc atc aaa cag cag tgc gac tcc	4141
Arg Cys Ala Ser Gly Gln Cys Val Leu Ile Lys Gln Gln Cys Asp Ser	
1345 1350 1355	
ttc ccc gac tgt atc gac ggc tcc gac gag ctc atg tgt gaa atc acc	4189
Phe Pro Asp Cys Ile Asp Gly Ser Asp Glu Leu Met Cys Glu Ile Thr	
1360 1365 1370	
aag ccg ccc tca gac gac agc ccg gcc cac agc agt gcc atc ggg ccc	4237
Lys Pro Pro Ser Asp Asp Ser Pro Ala His Ser Ser Ala Ile Gly Pro	
1375 1380 1385	
gtc att ggc atc atc ctc tct ctc ttc gtc atg ggt ggt gtc tat ttt	4285
Val Ile Gly Ile Ile Leu Ser Leu Phe Val Met Gly Gly Val Tyr Phe	
1390 1395 1400 1405	
gtg tgc cag cgc gtg gtg tgc cag cgc tat gcg ggg gcc aac ggg ccc	4333
Val Cys Gln Arg Val Val Cys Gln Arg Tyr Ala Gly Ala Asn Gly Pro	
1410 1415 1420	
ttc ccg cac gag tat gtc agc ggg acc ccg cac gtg ccc ctc aat ttc	4381
Phe Pro His Glu Tyr Val Ser Gly Thr Pro His Val Pro Leu Asn Phe	
1425 1430 1435	
ata gcc ccg ggc ggt tcc cag cat ggc ccc ttc aca ggc atc gca tgc	4429
Ile Ala Pro Gly Gly Ser Gln His Gly Pro Phe Thr Gly Ile Ala Cys	

1440	1445	1450	
gga aag tcc atg atg agc tcc gtg agc ctg atg ggg ggc cgg ggc ggg			4477
Gly Lys Ser Met Met Ser Ser Val Ser Leu Met Gly Gly Arg Gly Gly			
1455	1460	1465	
gtg ccc ctc tac gac cgg aac cac gtc aca ggg gcc tcg tcc agc agc			4525
Val Pro Leu Tyr Asp Arg Asn His Val Thr Gly Ala Ser Ser Ser Ser			
1470	1475	1480	1485
tcg tcc agc acg aag gcc acg ctg tac ccg ccg atc ctg aac ccg ccg			4573
Ser Ser Ser Thr Lys Ala Thr Leu Tyr Pro Pro Ile Leu Asn Pro Pro			
	1490	1495	1500
ccc tcc ccg gcc acg gac ccc tcc ctg tac aac atg gac atg ttc tac			4621
Pro Ser Pro Ala Thr Asp Pro Ser Leu Tyr Asn Met Asp Met Phe Tyr			
	1505	1510	1515
tct tca aac att ccg gcc act gcg aga ccg tac agg ccc tac atc att			4669
Ser Ser Asn Ile Pro Ala Thr Ala Arg Pro Tyr Arg Pro Tyr Ile Ile			
	1520	1525	1530
cga gga atg gcg ccc ccg acg acg ccc tgc agc acc gac gtg tgt gac			4717
Arg Gly Met Ala Pro Pro Thr Thr Pro Cys Ser Thr Asp Val Cys Asp			
	1535	1540	1545
agc gac tac agc gcc agc cgc tgg aag gcc agc aag tac tac ctg gat			4765
Ser Asp Tyr Ser Ala Ser Arg Trp Lys Ala Ser Lys Tyr Tyr Leu Asp			
1550	1555	1560	1565
ttg aac tcg gac tca gac ccc tat cca ccc cca ccc acg ccc cac agc			4813
Leu Asn Ser Asp Ser Asp Pro Tyr Pro Pro Pro Pro Thr Pro His Ser			
	1570	1575	1580
cag tac ctg tcg gcg gag gac agc tgc ccg ccc tcg ccc gcc acc gag			4861
Gln Tyr Leu Ser Ala Glu Asp Ser Cys Pro Pro Ser Pro Ala Thr Glu			
	1585	1590	1595
agg agc tac ttc cat ctc ttc ccg ccc cct ccg tcc ccc tgc acg gac			4909

Arg Ser Tyr Phe His Leu Phe Pro Pro Pro Pro Ser Pro Cys Thr Asp

1600

1605

1610

tca tcc tgacctcggc cgggccactc tggcttctct gtgccctgt aaatagtttt 4965

Ser Ser

1615

aaatatgaac aaagaaaaaa atatatttta tgatttaaaa aataaatata attgggattt 5025

taaaaacatg agaaatgtga actgtgatgg ggtgggcagg gctgggagaa ctttgtacag 5085

tggagaaata ttataaaact taattttgta aaaca 5120

<210> 3

<211> 1615

<212> PRT

<213> Homo sapiens

<400> 3

Met Glu Ala Ala Pro Pro Gly Pro Pro Trp Pro Leu Leu Leu Leu Leu

1

5

10

15

Leu Leu Leu Leu Ala Leu Cys Gly Cys Pro Ala Pro Ala Ala Ala Ser

20

25

30

Pro Leu Leu Leu Phe Ala Asn Arg Arg Asp Val Arg Leu Val Asp Ala

35

40

45

Gly Gly Val Lys Leu Glu Ser Thr Ile Val Val Ser Gly Leu Glu Asp

50

55

60

Ala Ala Ala Val Asp Phe Gln Phe Ser Lys Gly Ala Val Tyr Trp Thr

65

70

75

80

Asp Val Ser Glu Glu Ala Ile Lys Gln Thr Tyr Leu Asn Gln Thr Gly

85

90

95

Ala Ala Val Gln Asn Val Val Ile Ser Gly Leu Val Ser Pro Asp Gly

100

105

110

Leu Ala Cys Asp Trp Val Gly Lys Lys Leu Tyr Trp Thr Asp Ser Glu  
 115 120 125  
 Thr Asn Arg Ile Glu Val Ala Asn Leu Asn Gly Thr Ser Arg Lys Val  
 130 135 140  
 Leu Phe Trp Gln Asp Leu Asp Gln Pro Lys Ala Ile Ala Leu Asp Pro  
 145 150 155 160  
 Ala His Gly Tyr Met Tyr Trp Thr Asp Trp Gly Glu Thr Pro Arg Ile  
 165 170 175  
 Glu Arg Ala Gly Met Asp Gly Ser Thr Arg Lys Ile Ile Val Asp Ser  
 180 185 190  
 Asp Ile Tyr Trp Pro Asn Gly Leu Thr Ile Asp Leu Glu Glu Gln Lys  
 195 200 205  
 Leu Tyr Trp Ala Asp Ala Lys Leu Ser Phe Ile His Arg Ala Asn Leu  
 210 215 220  
 Asp Gly Ser Phe Arg Gln Lys Val Val Glu Gly Ser Leu Thr His Pro  
 225 230 235 240  
 Phe Ala Leu Thr Leu Ser Gly Asp Thr Leu Tyr Trp Thr Asp Trp Gln  
 245 250 255  
 Thr Arg Ser Ile His Ala Cys Asn Lys Arg Thr Gly Gly Lys Arg Lys  
 260 265 270  
 Glu Ile Leu Ser Ala Leu Tyr Ser Pro Met Asp Ile Gln Val Leu Ser  
 275 280 285  
 Gln Glu Arg Gln Pro Phe Phe His Thr Arg Cys Glu Glu Asp Asn Gly  
 290 295 300  
 Gly Trp Ser His Leu Cys Leu Leu Ser Pro Ser Glu Pro Phe Tyr Thr  
 305 310 315 320  
 Cys Ala Cys Pro Thr Gly Val Gln Met Gln Asp Asn Gly Arg Thr Cys  
 325 330 335  
 Lys Ala Gly Ala Glu Glu Val Leu Leu Leu Ala Arg Arg Thr Asp Leu

340	345	350	
Arg Arg Ile Ser Leu Asp Thr Pro Asp Phe Thr Asp Ile Val Leu Gln			
355	360	365	
Val Asp Asp Ile Arg His Ala Ile Ala Ile Asp Tyr Asp Pro Leu Glu			
370	375	380	
Gly Tyr Val Tyr Trp Thr Asp Asp Glu Val Arg Ala Ile Arg Arg Ala			
385	390	395	400
Tyr Leu Asp Gly Ser Gly Ala Gln Thr Leu Val Asn Thr Glu Ile Asn			
405	410	415	
Asp Pro Asp Gly Ile Ala Val Asp Trp Val Ala Arg Asn Leu Tyr Trp			
420	425	430	
Thr Asp Thr Gly Thr Asp Arg Ile Glu Val Thr Arg Leu Asn Gly Thr			
435	440	445	
Ser Arg Lys Ile Leu Val Ser Glu Asp Leu Asp Glu Pro Arg Ala Ile			
450	455	460	
Ala Leu His Pro Val Met Gly Leu Met Tyr Trp Thr Asp Trp Gly Glu			
465	470	475	480
Asn Pro Lys Ile Glu Cys Ala Asn Leu Asp Gly Gln Glu Arg Arg Val			
485	490	495	
Leu Val Asn Ala Ser Leu Gly Trp Pro Asn Gly Leu Ala Leu Asp Leu			
500	505	510	
Gln Glu Gly Lys Leu Tyr Trp Gly Asp Ala Lys Thr Asp Lys Ile Glu			
515	520	525	
Val Ile Asn Val Asp Gly Thr Lys Arg Arg Thr Leu Leu Glu Asp Lys			
530	535	540	
Leu Pro His Ile Phe Gly Phe Thr Leu Leu Gly Asp Phe Ile Tyr Trp			
545	550	555	560
Thr Asp Trp Gln Arg Arg Ser Ile Glu Arg Val His Lys Val Lys Ala			
565	570	575	

Ser Arg Asp Val Ile Ile Asp Gln Leu Pro Asp Leu Met Gly Leu Lys  
 580 585 590  
 Ala Val Asn Val Ala Lys Val Val Gly Thr Asn Pro Cys Ala Asp Arg  
 595 600 605  
 Asn Gly Gly Cys Ser His Leu Cys Phe Phe Thr Pro His Ala Thr Arg  
 610 615 620  
 Cys Gly Cys Pro Ile Gly Leu Glu Leu Leu Ser Asp Met Lys Thr Cys  
 625 630 635 640  
 Ile Val Pro Glu Ala Phe Leu Val Phe Thr Ser Arg Ala Ala Ile His  
 645 650 655  
 Arg Ile Ser Leu Glu Thr Asn Asn Asn Asp Val Ala Ile Pro Leu Thr  
 660 665 670  
 Gly Val Lys Glu Ala Ser Ala Leu Asp Phe Asp Val Ser Asn Asn His  
 675 680 685  
 Ile Tyr Trp Thr Asp Val Ser Leu Lys Asn Ile Ser Arg Ala Phe Met  
 690 695 700  
 Asn Gly Ser Ser Val Glu His Val Val Glu Phe Gly Leu Asp Tyr Pro  
 705 710 715 720  
 Glu Gly Met Ala Val Asp Trp Met Gly Lys Asn Leu Tyr Trp Ala Asp  
 725 730 735  
 Thr Gly Thr Asn Arg Ile Glu Val Ala Arg Leu Asp Gly Gln Phe Arg  
 740 745 750  
 Gln Val Leu Val Trp Arg Asp Leu Asp Asn Pro Arg Ser Leu Ala Leu  
 755 760 765  
 Asp Pro Thr Lys Gly Tyr Ile Tyr Trp Thr Glu Trp Gly Gly Lys Pro  
 770 775 780  
 Arg Ile Val Arg Ala Phe Met Asp Gly Thr Asn Cys Met Thr Leu Val  
 785 790 795 800  
 Asp Lys Val Gly Arg Ala Asn Asp Leu Thr Ile Asp Tyr Ala Asp Gln

805	810	815	
Arg Leu Tyr Trp Thr Asp Leu Asp Thr Asn Met Ile Glu Ser Ser Asn			
820	825	830	
Met Leu Gly Gln Glu Arg Val Val Ile Ala Asp Asp Leu Pro His Pro			
835	840	845	
Phe Gly Leu Thr Gln Tyr Ser Asp Tyr Ile Tyr Trp Thr Asp Trp Asn			
850	855	860	
Leu His Ser Ile Glu Arg Ala Asp Lys Thr Ser Gly Arg Asn Arg Thr			
865	870	875	880
Leu Ile Gln Gly His Leu Asp Phe Val Met Asp Ile Leu Val Phe His			
885	890	895	
Ser Ser Arg Gln Asp Gly Leu Asn Asp Cys Met His Asn Asn Gly Gln			
900	905	910	
Cys Gly Gln Leu Cys Leu Ala Ile Pro Gly Gly His Arg Cys Gly Cys			
915	920	925	
Ala Ser His Tyr Thr Leu Asp Pro Ser Ser Arg Asn Cys Ser Pro Pro			
930	935	940	
Thr Thr Phe Leu Leu Phe Ser Gln Lys Ser Ala Ile Ser Arg Met Ile			
945	950	955	960
Pro Asp Asp Gln His Ser Pro Asp Leu Ile Leu Pro Leu His Gly Leu			
965	970	975	
Arg Asn Val Lys Ala Ile Asp Tyr Asp Pro Leu Asp Lys Phe Ile Tyr			
980	985	990	
Trp Val Asp Gly Arg Gln Asn Ile Lys Arg Ala Lys Asp Asp Gly Thr			
995	1000	1005	
Gln Pro Phe Val Leu Thr Ser Leu Ser Gln Gly Gln Asn Pro Asp Arg			
1010	1015	1020	
Gln Pro His Asp Leu Ser Ile Asp Ile Tyr Ser Arg Thr Leu Phe Trp			
1025	1030	1035	1040

Thr Cys Glu Ala Thr Asn Thr Ile Asn Val His Arg Leu Ser Gly Glu  
 1045 1050 1055  
 Ala Met Gly Val Val Leu Arg Gly Asp Arg Asp Lys Pro Arg Ala Ile  
 1060 1065 1070  
 Val Val Asn Ala Glu Arg Gly Tyr Leu Tyr Phe Thr Asn Met Gln Asp  
 1075 1080 1085  
 Arg Ala Ala Lys Ile Glu Arg Ala Ala Leu Asp Gly Thr Glu Arg Glu  
 1090 1095 1100  
 Val Leu Phe Thr Thr Gly Leu Ile Arg Pro Val Ala Leu Val Val Asp  
 1105 1110 1115 1120  
 Asn Thr Leu Gly Lys Leu Phe Trp Val Asp Ala Asp Leu Lys Arg Ile  
 1125 1130 1135  
 Glu Ser Cys Asp Leu Ser Gly Ala Asn Arg Leu Thr Leu Glu Asp Ala  
 1140 1145 1150  
 Asn Ile Val Gln Pro Leu Gly Leu Thr Ile Leu Gly Lys His Leu Tyr  
 1155 1160 1165  
 Trp Ile Asp Arg Gln Gln Gln Met Ile Glu Arg Val Glu Lys Thr Thr  
 1170 1175 1180  
 Gly Asp Lys Arg Thr Arg Ile Gln Gly Arg Val Ala His Leu Thr Gly  
 1185 1190 1195 1200  
 Ile His Ala Val Glu Glu Val Ser Leu Glu Glu Phe Ser Ala His Pro  
 1205 1210 1215  
 Cys Ala Arg Asp Asn Gly Gly Cys Ser His Ile Cys Ile Ala Lys Gly  
 1220 1225 1230  
 Asp Gly Thr Pro Arg Cys Ser Cys Pro Val His Leu Val Leu Leu Gln  
 1235 1240 1245  
 Asn Leu Leu Thr Cys Gly Glu Pro Pro Thr Cys Ser Pro Asp Gln Phe  
 1250 1255 1260  
 Ala Cys Ala Thr Gly Glu Ile Asp Cys Ile Pro Gly Ala Trp Arg Cys



1265	1270	1275	1280
Asp Gly Phe Pro Glu Cys Asp Asp Gln Ser Asp Glu Glu Gly Cys Pro			
1285	1290	1295	
Val Cys Ser Ala Ala Gln Phe Pro Cys Ala Arg Gly Gln Cys Val Asp			
1300	1305	1310	
Leu Arg Leu Arg Cys Asp Gly Glu Ala Asp Cys Gln Asp Arg Ser Asp			
1315	1320	1325	
Glu Val Asp Cys Asp Ala Ile Cys Leu Pro Asn Gln Phe Arg Cys Ala			
1330	1335	1340	
Ser Gly Gln Cys Val Leu Ile Lys Gln Gln Cys Asp Ser Phe Pro Asp			
1345	1350	1355	1360
Cys Ile Asp Gly Ser Asp Glu Leu Met Cys Glu Ile Thr Lys Pro Pro			
1365	1370	1375	
Ser Asp Asp Ser Pro Ala His Ser Ser Ala Ile Gly Pro Val Ile Gly			
1380	1385	1390	
Ile Ile Leu Ser Leu Phe Val Met Gly Gly Val Tyr Phe Val Cys Gln			
1395	1400	1405	
Arg Val Val Cys Gln Arg Tyr Ala Gly Ala Asn Gly Pro Phe Pro His			
1410	1415	1420	
Glu Tyr Val Ser Gly Thr Pro His Val Pro Leu Asn Phe Ile Ala Pro			
1425	1430	1435	1440
Gly Gly Ser Gln His Gly Pro Phe Thr Gly Ile Ala Cys Gly Lys Ser			
1445	1450	1455	
Met Met Ser Ser Val Ser Leu Met Gly Gly Arg Gly Gly Val Pro Leu			
1460	1465	1470	
Tyr Asp Arg Asn His Val Thr Gly Ala Ser Ser Ser Ser Ser Ser Ser			
1475	1480	1485	
Thr Lys Ala Thr Leu Tyr Pro Pro Ile Leu Asn Pro Pro Pro Ser Pro			
1490	1495	1500	

Ala Thr Asp Pro Ser Leu Tyr Asn Met Asp Met Phe Tyr Ser Ser Asn  
1505                      1510                      1515                      1520  
Ile Pro Ala Thr Ala Arg Pro Tyr Arg Pro Tyr Ile Ile Arg Gly Met  
                         1525                      1530                      1535  
Ala Pro Pro Thr Thr Pro Cys Ser Thr Asp Val Cys Asp Ser Asp Tyr  
                         1540                      1545                      1550  
Ser Ala Ser Arg Trp Lys Ala Ser Lys Tyr Tyr Leu Asp Leu Asn Ser  
                         1555                      1560                      1565  
Asp Ser Asp Pro Tyr Pro Pro Pro Pro Thr Pro His Ser Gln Tyr Leu  
                         1570                      1575                      1580  
Ser Ala Glu Asp Ser Cys Pro Pro Ser Pro Ala Thr Glu Arg Ser Tyr  
1585                      1590                      1595                      1600  
Phe His Leu Phe Pro Pro Pro Pro Ser Pro Cys Thr Asp Ser Ser  
                         1605                      1610                      1615

<210> 4

<211> 1615

<212> PRT

<213> Homo sapiens

<400> 4

Met Glu Ala Ala Pro Pro Gly Pro Pro Trp Pro Leu Leu Leu Leu Leu  
1                      5                      10                      15  
Leu Leu Leu Leu Ala Leu Cys Gly Cys Pro Ala Pro Ala Ala Ala Ser  
                         20                      25                      30  
Pro Leu Leu Leu Phe Ala Asn Arg Arg Asp Val Arg Leu Val Asp Ala  
                         35                      40                      45  
Gly Gly Val Lys Leu Glu Ser Thr Ile Val Val Ser Gly Leu Glu Asp

50	55	60
Ala Ala Ala Val Asp Phe Gln Phe Ser Lys Gly Ala Val Tyr Trp Thr		
65	70	75
Asp Val Ser Glu Glu Ala Ile Lys Gln Thr Tyr Leu Asn Gln Thr Gly		80
	85	90
Ala Ala Val Gln Asn Val Val Ile Ser Gly Leu Val Ser Pro Asp Gly		95
	100	105
Leu Ala Cys Asp Trp Val Gly Lys Lys Leu Tyr Trp Thr Asp Ser Glu		110
	115	120
Thr Asn Arg Ile Glu Val Ala Asn Leu Asn Gly Thr Ser Arg Lys Val		125
	130	135
Leu Phe Trp Gln Asp Leu Asp Gln Pro Lys Ala Ile Ala Leu Asp Pro		140
145	150	155
Ala His Gly Tyr Met Tyr Trp Thr Asp Trp Val Glu Thr Pro Arg Ile		160
	165	170
Glu Arg Ala Gly Met Asp Gly Ser Thr Arg Lys Ile Ile Val Asp Ser		175
	180	185
Asp Ile Tyr Trp Pro Asn Gly Leu Thr Ile Asp Leu Glu Glu Gln Lys		190
	195	200
Leu Tyr Trp Ala Asp Ala Lys Leu Ser Phe Ile His Arg Ala Asn Leu		205
	210	215
Asp Gly Ser Phe Arg Gln Lys Val Val Glu Gly Ser Leu Thr His Pro		220
225	230	235
Phe Ala Leu Thr Leu Ser Gly Asp Thr Leu Tyr Trp Thr Asp Trp Gln		240
	245	250
Thr Arg Ser Ile His Ala Cys Asn Lys Arg Thr Gly Gly Lys Arg Lys		255
	260	265
Glu Ile Leu Ser Ala Leu Tyr Ser Pro Met Asp Ile Gln Val Leu Ser		270
	275	280
		285

Gln Glu Arg Gln Pro Phe Phe His Thr Arg Cys Glu Glu Asp Asn Gly  
 290 295 300  
 Gly Trp Ser His Leu Cys Leu Leu Ser Pro Ser Glu Pro Phe Tyr Thr  
 305 310 315 320  
 Cys Ala Cys Pro Thr Gly Val Gln Met Gln Asp Asn Gly Arg Thr Cys  
 325 330 335  
 Lys Ala Gly Ala Glu Glu Val Leu Leu Leu Ala Arg Arg Thr Asp Leu  
 340 345 350  
 Arg Arg Ile Ser Leu Asp Thr Pro Asp Phe Thr Asp Ile Val Leu Gln  
 355 360 365  
 Val Asp Asp Ile Arg His Ala Ile Ala Ile Asp Tyr Asp Pro Leu Glu  
 370 375 380  
 Gly Tyr Val Tyr Trp Thr Asp Asp Glu Val Arg Ala Ile Arg Arg Ala  
 385 390 395 400  
 Tyr Leu Asp Gly Ser Gly Ala Gln Thr Leu Val Asn Thr Glu Ile Asn  
 405 410 415  
 Asp Pro Asp Gly Ile Ala Val Asp Trp Val Ala Arg Asn Leu Tyr Trp  
 420 425 430  
 Thr Asp Thr Gly Thr Asp Arg Ile Glu Val Thr Arg Leu Asn Gly Thr  
 435 440 445  
 Ser Arg Lys Ile Leu Val Ser Glu Asp Leu Asp Glu Pro Arg Ala Ile  
 450 455 460  
 Ala Leu His Pro Val Met Gly Leu Met Tyr Trp Thr Asp Trp Gly Glu  
 465 470 475 480  
 Asn Pro Lys Ile Glu Cys Ala Asn Leu Asp Gly Gln Glu Arg Arg Val  
 485 490 495  
 Leu Val Asn Ala Ser Leu Gly Trp Pro Asn Gly Leu Ala Leu Asp Leu  
 500 505 510  
 Gln Glu Gly Lys Leu Tyr Trp Gly Asp Ala Lys Thr Asp Lys Ile Glu

515	520	525
Val Ile Asn Val Asp Gly Thr Lys Arg Arg Thr Leu Leu Glu Asp Lys		
530	535	540
Leu Pro His Ile Phe Gly Phe Thr Leu Leu Gly Asp Phe Ile Tyr Trp		
545	550	555
Thr Asp Trp Gln Arg Arg Ser Ile Glu Arg Val His Lys Val Lys Ala		
565	570	575
Ser Arg Asp Val Ile Ile Asp Gln Leu Pro Asp Leu Met Gly Leu Lys		
580	585	590
Ala Val Asn Val Ala Lys Val Val Gly Thr Asn Pro Cys Ala Asp Arg		
595	600	605
Asn Gly Gly Cys Ser His Leu Cys Phe Phe Thr Pro His Ala Thr Arg		
610	615	620
Cys Gly Cys Pro Ile Gly Leu Glu Leu Leu Ser Asp Met Lys Thr Cys		
625	630	635
Ile Val Pro Glu Ala Phe Leu Val Phe Thr Ser Arg Ala Ala Ile His		
645	650	655
Arg Ile Ser Leu Glu Thr Asn Asn Asn Asp Val Ala Ile Pro Leu Thr		
660	665	670
Gly Val Lys Glu Ala Ser Ala Leu Asp Phe Asp Val Ser Asn Asn His		
675	680	685
Ile Tyr Trp Thr Asp Val Ser Leu Lys Asn Ile Ser Arg Ala Phe Met		
690	695	700
Asn Gly Ser Ser Val Glu His Val Val Glu Phe Gly Leu Asp Tyr Pro		
705	710	715
Glu Gly Met Ala Val Asp Trp Met Gly Lys Asn Leu Tyr Trp Ala Asp		
725	730	735
Thr Gly Thr Asn Arg Ile Glu Val Ala Arg Leu Asp Gly Gln Phe Arg		
740	745	750

Gln Val Leu Val Trp Arg Asp Leu Asp Asn Pro Arg Ser Leu Ala Leu  
 755 760 765  
 Asp Pro Thr Lys Gly Tyr Ile Tyr Trp Thr Glu Trp Gly Gly Lys Pro  
 770 775 780  
 Arg Ile Val Arg Ala Phe Met Asp Gly Thr Asn Cys Met Thr Leu Val  
 785 790 795 800  
 Asp Lys Val Gly Arg Ala Asn Asp Leu Thr Ile Asp Tyr Ala Asp Gln  
 805 810 815  
 Arg Leu Tyr Trp Thr Asp Leu Asp Thr Asn Met Ile Glu Ser Ser Asn  
 820 825 830  
 Met Leu Gly Gln Glu Arg Val Val Ile Ala Asp Asp Leu Pro His Pro  
 835 840 845  
 Phe Gly Leu Thr Gln Tyr Ser Asp Tyr Ile Tyr Trp Thr Asp Trp Asn  
 850 855 860  
 Leu His Ser Ile Glu Arg Ala Asp Lys Thr Ser Gly Arg Asn Arg Thr  
 865 870 875 880  
 Leu Ile Gln Gly His Leu Asp Phe Val Met Asp Ile Leu Val Phe His  
 885 890 895  
 Ser Ser Arg Gln Asp Gly Leu Asn Asp Cys Met His Asn Asn Gly Gln  
 900 905 910  
 Cys Gly Gln Leu Cys Leu Ala Ile Pro Gly Gly His Arg Cys Gly Cys  
 915 920 925  
 Ala Ser His Tyr Thr Leu Asp Pro Ser Ser Arg Asn Cys Ser Pro Pro  
 930 935 940  
 Thr Thr Phe Leu Leu Phe Ser Gln Lys Ser Ala Ile Ser Arg Met Ile  
 945 950 955 960  
 Pro Asp Asp Gln His Ser Pro Asp Leu Ile Leu Pro Leu His Gly Leu  
 965 970 975  
 Arg Asn Val Lys Ala Ile Asp Tyr Asp Pro Leu Asp Lys Phe Ile Tyr

980	985	990
Trp Val Asp Gly Arg Gln Asn Ile Lys Arg Ala Lys Asp Asp Gly Thr		
995	1000	1005
Gln Pro Phe Val Leu Thr Ser Leu Ser Gln Gly Gln Asn Pro Asp Arg		
1010	1015	1020
Gln Pro His Asp Leu Ser Ile Asp Ile Tyr Ser Arg Thr Leu Phe Trp		
1025	1030	1035
Thr Cys Glu Ala Thr Asn Thr Ile Asn Val His Arg Leu Ser Gly Glu		
1045	1050	1055
Ala Met Gly Val Val Leu Arg Gly Asp Arg Asp Lys Pro Arg Ala Ile		
1060	1065	1070
Val Val Asn Ala Glu Arg Gly Tyr Leu Tyr Phe Thr Asn Met Gln Asp		
1075	1080	1085
Arg Ala Ala Lys Ile Glu Arg Ala Ala Leu Asp Gly Thr Glu Arg Glu		
1090	1095	1100
Val Leu Phe Thr Thr Gly Leu Ile Arg Pro Val Ala Leu Val Val Asp		
1105	1110	1115
Asn Thr Leu Gly Lys Leu Phe Trp Val Asp Ala Asp Leu Lys Arg Ile		
1125	1130	1135
Glu Ser Cys Asp Leu Ser Gly Ala Asn Arg Leu Thr Leu Glu Asp Ala		
1140	1145	1150
Asn Ile Val Gln Pro Leu Gly Leu Thr Ile Leu Gly Lys His Leu Tyr		
1155	1160	1165
Trp Ile Asp Arg Gln Gln Gln Met Ile Glu Arg Val Glu Lys Thr Thr		
1170	1175	1180
Gly Asp Lys Arg Thr Arg Ile Gln Gly Arg Val Ala His Leu Thr Gly		
1185	1190	1195
Ile His Ala Val Glu Glu Val Ser Leu Glu Glu Phe Ser Ala His Pro		
1205	1210	1215

Cys Ala Arg Asp Asn Gly Gly Cys Ser His Ile Cys Ile Ala Lys Gly  
 1220 1225 1230  
 Asp Gly Thr Pro Arg Cys Ser Cys Pro Val His Leu Val Leu Leu Gln  
 1235 1240 1245  
 Asn Leu Leu Thr Cys Gly Glu Pro Pro Thr Cys Ser Pro Asp Gln Phe  
 1250 1255 1260  
 Ala Cys Ala Thr Gly Glu Ile Asp Cys Ile Pro Gly Ala Trp Arg Cys  
 1265 1270 1275 1280  
 Asp Gly Phe Pro Glu Cys Asp Asp Gln Ser Asp Glu Glu Gly Cys Pro  
 1285 1290 1295  
 Val Cys Ser Ala Ala Gln Phe Pro Cys Ala Arg Gly Gln Cys Val Asp  
 1300 1305 1310  
 Leu Arg Leu Arg Cys Asp Gly Glu Ala Asp Cys Gln Asp Arg Ser Asp  
 1315 1320 1325  
 Glu Val Asp Cys Asp Ala Ile Cys Leu Pro Asn Gln Phe Arg Cys Ala  
 1330 1335 1340  
 Ser Gly Gln Cys Val Leu Ile Lys Gln Gln Cys Asp Ser Phe Pro Asp  
 1345 1350 1355 1360  
 Cys Ile Asp Gly Ser Asp Glu Leu Met Cys Glu Ile Thr Lys Pro Pro  
 1365 1370 1375  
 Ser Asp Asp Ser Pro Ala His Ser Ser Ala Ile Gly Pro Val Ile Gly  
 1380 1385 1390  
 Ile Ile Leu Ser Leu Phe Val Met Gly Gly Val Tyr Phe Val Cys Gln  
 1395 1400 1405  
 Arg Val Val Cys Gln Arg Tyr Ala Gly Ala Asn Gly Pro Phe Pro His  
 1410 1415 1420  
 Glu Tyr Val Ser Gly Thr Pro His Val Pro Leu Asn Phe Ile Ala Pro  
 1425 1430 1435 1440  
 Gly Gly Ser Gln His Gly Pro Phe Thr Gly Ile Ala Cys Gly Lys Ser



1445	1450	1455	
Met Met Ser Ser Val Ser Leu Met Gly Gly Arg Gly Gly Val Pro Leu			
1460	1465	1470	
Tyr Asp Arg Asn His Val Thr Gly Ala Ser Ser Ser Ser Ser Ser Ser			
1475	1480	1485	
Thr Lys Ala Thr Leu Tyr Pro Pro Ile Leu Asn Pro Pro Pro Ser Pro			
1490	1495	1500	
Ala Thr Asp Pro Ser Leu Tyr Asn Met Asp Met Phe Tyr Ser Ser Asn			
1505	1510	1515	1520
Ile Pro Ala Thr Ala Arg Pro Tyr Arg Pro Tyr Ile Ile Arg Gly Met			
1525	1530	1535	
Ala Pro Pro Thr Thr Pro Cys Ser Thr Asp Val Cys Asp Ser Asp Tyr			
1540	1545	1550	
Ser Ala Ser Arg Trp Lys Ala Ser Lys Tyr Tyr Leu Asp Leu Asn Ser			
1555	1560	1565	
Asp Ser Asp Pro Tyr Pro Pro Pro Pro Thr Pro His Ser Gln Tyr Leu			
1570	1575	1580	
Ser Ala Glu Asp Ser Cys Pro Pro Ser Pro Ala Thr Glu Arg Ser Tyr			
1585	1590	1595	1600
Phe His Leu Phe Pro Pro Pro Pro Ser Pro Cys Thr Asp Ser Ser			
1605	1610	1615	

<210> 5

<211> 3096

<212> DNA

<213> Homo sapiens

<400> 5

catcttctca	cacgatctct	cgcttcgcac	tccttccttt	gattggtttt	caccatttac	60
tcagacgacg	gtcctttcttc	gatctttgca	cattcttcta	tcatctacta	ccttcataacc	120
cagctccgtc	ccctaataatt	catgcgcgga	tggcccatte	cgtggtgaaa	attcccttct	180
actctgctaa	tctgctgttc	tctctccctc	ccgtcgggtt	ctgctcctgc	cacgttctcc	240
cctctcccca	ccaaaggctg	ggttttcttt	gtcagggctc	ctttccctt	tggaagaagg	300
ggggctgtat	ggccttggtg	cgaggccctc	cagtgacagg	atccccatc	accagagtt	360
ccacaggccc	tggtagggag	gagggggagc	agaagaggag	gtgccatctt	tgctgctgg	420
ggaagggcag	gggccacca	cacagagctc	tcccatttgc	tgtggaccct	ggggccactg	480
cccagttcct	tccaaaggaa	agccagctcc	ccaggtgggtg	ggagagtgat	atggcttcct	540
cttaaactta	gggaattgag	tgtgtgggtg	cttctaagtg	ccttagaagc	cgggagcggc	600
tcttgaaaag	agcctgctg	ccacagcggg	ccttaccttg	gctgtgcca	cagatgtccc	660
tggggcctgc	cgctcctgcc	cggtctcct	ggcctcccc	ggtgtgggtt	gggaaaagca	720
cagcaaatta	aaaaacacct	ccatctctgg	cctttgaaga	atgcatctga	acagccgaga	780
gtgtaaaccg	tggtgaaatg	tggtctttcc	agtttgggga	gaagcagggc	agagctgggg	840
cttttgtacc	cagggtttcc	aagagctcct	gcctccctcg	gctgggctgg	ccagggcccc	900
ccgctgggac	ctccagctgt	aataggggaag	gttttactgg	gttgctggcc	actgtggact	960
gcccctaagg	gcaggtatgc	ctgcctttac	ccgggttccc	ctcctgctg	gaagatacag	1020
cccatgggag	gcctgttgtc	tgtgggatcc	tccagcatca	gagacactgg	ggccagcgtc	1080
tgcttggtga	ggtgcaggcc	tggcaggccc	ggtccccac	ctgcttgagc	accacgggtg	1140
gtgggggctc	gctgcctccc	gagacaatct	atgtcattgt	tgtccaagga	agctaattta	1200
gagtagaaag	ttccgtgtcc	agtccactc	tgtgcgtgtg	ttagcagggg	actctcgggc	1260
cggagctggg	tccacctgg	tagggggact	tcatggggcc	tgggcgacag	cactgtgtat	1320
ttgtgtgtgt	gtgtgtttgt	gtgtgtgtgt	gtctgaggag	gtggaccagt	ttctcaaaag	1380
gcctgtgacc	ccaagaacca	aggaatttca	gcctgggtgg	atcacacctt	cactggtgag	1440
tgggacaagc	tgggggcct	cgccacagga	gcagccaggg	catggggcac	agttggcctc	1500
attcacaaaa	tgggagtata	agtgatccct	gctctggcgg	ccaggacgat	gagtgggaac	1560
acaccgtgtg	ggggctgcct	ggcctgggtg	tgccgcgggt	gtccttgttg	gtgatggttc	1620
cacctgcttg	tgcaccagt	gccctctggg	tctcacacac	aactctcttc	ccagcgaagg	1680
cccctcctgc	cctcaggcct	cagtgtctgt	tccgtctcgg	aaggccccag	gagctcctgc	1740

atcctgggag tgattcctgt gtgcctgcag acccctcgc ggctgccatc tcatcctttg	1800
gtgcacctgt tggccagacc tcctggtagc ggggtgctgca ctccctgaa tgtgccgggg	1860
cctgggggca gggacctggg ctctccctc actgagtga ggaactcag tgtcttgag	1920
ttggggtgcc tgcaggctgg gtggtgcagg tgaaatgcag acctctcagc tgggtgtcca	1980
gagcagctgc ctccccccgc ccgagggact tcaccgcag cccagtcagg ggtgggcct	2040
gggtgcacgc ccgcaggct gggtaggggt ggagcctggg tggccctgcc tgtgagctgc	2100
atagttgtgc cctttgacct tgagttttct tcgttatctg tttggacctg tttggggcag	2160
gcaggggatg agatctgaag ataaatgcct tagctgtgac catctccttt tgtgagaggt	2220
caatgtccag ttccgctgca gttataacat cccatttttt gatttctttt tattttttcc	2280
tttttctttt tgagatggag tctcgtctctg tcaccaggc tggagtgcaa tggggtgacc	2340
tcagctcact gcaacctcca cttctcgggt tcaagtgatt ctctgcctc agcctcctga	2400
ctagcagggg ttacaggcgt gagccaccac gccagctaa tttttgtatt tttagtagag	2460
gcaaggtttc gtcattgttg ccaggctggg ctcaaactcc tggccttaag tgatctgccc	2520
gcctcggcct cccaaagtgc tgagatgaca ggtgtgagcc accgtgccc gcccagaact	2580
ctttaattcc cacctgaaac ttgccgcctt aagcaggctc ccagtctccc tcccctagtc	2640
cctgggccca ccattctgct ttctgtctca atgaatttgc ctaccgtaag tacctcatat	2700
aaattgaatc ataaagtatt tgtcttttta tatctggctt atttcaacta gcataacatt	2760
cttaagtttc atccatgttg tagcatgtgt cagaatctct ctcttttttt tttttttttt	2820
tttttttttt ttttgcagac agagtctcgc tctgtcatct agactggagt tcagtggcac	2880
gatctcgggt cactgcaaca tctgcctcct gggccaagc aattctcctg cctcagcctc	2940
cttagcagct ggaactacag gcgcgtgcc ccatgccttg ctaatttttg tatttttatg	3000
tggaggcagg gtttcacat cttggccagg ctggtctcga attcctggtc ttcaccacgg	3060
gggcccgaag gaccgggca aagcgtggag gggagg	3096

&lt;210&gt; 6

&lt;211&gt; 26928

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

<220>

<221> unsure

<222> (12044), (12489), (26433), (26434), (26435), (26436), (26439), (26441)

<223> Identity of nucleotide sequences at the above locations are unknown.

<400> 6

gaagaccaag ggcacacagc gaggcagttt cagggcgggc agcctggggc cccacggggc	60
ggccccggac acttggtctc acctgtggag ggcagagaag ggaacaggga gagaagtggc	120
cggtctgggag tggaggtggg tttgaggttt tactgtaaac taaatgtgta ccctctacct	180
tagttatgaa ttatgagaca cgaagactgc gaaacagaca cactcctcta aaagtgcctc	240
taggctgaca gggagaaagt cccgccaggc tcccagacgc cacctttgag tccttcaaca	300
agccccccag ggctcttgcc ccaccggtgt cagctcagcc actgaaccct ccaggaagaa	360
gacgtgctgg taggagaaga atctcaccca ggcacagcct ggaaggggca cagaaggggc	420
tccggaacca gcaagcccaa gttggaactc ccagtctgct actttctaga acgactgtgc	480
ccttggcggg tctaagtaga acctctccgc gcactctttc ctcttttgta aagtggggac	540
agcaatggcc accttgcagg ttcagagagg gcttgcagta cctcacagaa ctgagtggcc	600
gtgaacgtgt gtgttcctcc agatttgtag cagctttgcc aggctggagt caggctgaac	660
gcctctgccc tcatgggggt tatattctag gaagaccaac aaaaacaaga agacggaaaa	720
ttaaaacaac aaaagcccca ttgacaggcc gtgaagaatg ccatgaaaaa tgaatggcgt	780
tgtgctgcag tctttgggga aacgggctta cggaaagaag gacacttgag ctgctaccaa	840
tgagcagccg tccggtggga gggcagttca ggaagagcag acatccactg aggaggcgct	900
ggggcagagg gcagcctggt cgctggattc gggggaggaa ccacatcagg ccatgagctg	960
gagctggtgg tagaatgtac aggagaggcc agccagggcc agctcatgtc agacctcaag	1020
cggggaagat gaatcgagaa tgcacccac gagcaatggg aagccagtct acgatttaag	1080
cagcaaaaat attttcctt cttccacct gcattcagct ctaccagcac agcctggggt	1140
tctattttca agatagaata gaccagact ccagctctt cttacacttc tactactgcc	1200
acctgtcacc cactcatgctg tccccacttg cagcctcgac ccccttccac ctgatctcat	1260
ggcagccagg gaagctccag ggctcgtgag ggctgccatc tcaggaaaga agcaaaagcc	1320
ttcggcacct gcagggcctg ctccaaccac acttcttctt tgacctctca gcttccttag	1380

ccactccctt cccacatctc accctgctcc agccacagtg gtgtctctgt gggttctcaa	1440
acacaccagg tgcactcctg cctcagggcc tttgtgcttg ctgttctctg ctgggactct	1500
tttttttttt tttttttttg agacagggtc tcaactctgtg gccagggctg gagtgtagt	1560
gtgtgatcgt agctcattgc aacctcaaac tcctgggctc aagcaatcct cccacctcag	1620
cctctcaagt agtttagcttt tgttgttttg ttttgagatg ggatctcact ctggtgcccc	1680
ggctggagtg cagtggggca atcttggtc accacaacct ctgcctcccc ggctcaagca	1740
attctcctgc ctcagcctcc caagtagctg ggattacagg catgtgccac cagccccagc	1800
ttatTTTTgt attttttagta gagacagggc ttcaccatgt tggctctggct ggtcttgaac	1860
tcctggcctc agatgatcca cctgcctcgg cctcccaaag tgctgggatg acaggcatga	1920
gcctgtctct agtagttagg actacagaga gggggccatca tgcttggatga tcctccacc	1980
ttttctgctc caactctttc accccactta gcctcgtggc tcaactctctt acctcttcag	2040
ctctcagtc aggctgagg acccctgttg aaaattgcaa accacacccc ccaccaccac	2100
caccactat tgccagcact ttctactcca tttctctgct ttacttttct cctttgtact	2160
catcaccacc tgactcatta catgtttaag tatctttctt ctctccacta gcatggaagc	2220
tccaggagag cagagagtgt agttttattc cctgatgtgt ttctgtgcc cgtaccagg	2280
cctagcacac agtaggtgct cagtaaatgt gtgttgatg aacaaatata gtgaaaggat	2340
ctgatctaca ttataaaga aggcactctg gctgctgagt ggggatgaga ctgtcaggag	2400
gaaagaggcc cctgtggggg cctggccagc aggtgggtac aatggtagca gccaggagag	2460
agggcctctt ggactcaagt ggatggggcc tgctcagggc tccggccaca ggaacaaagg	2520
gaagggggcc caggatggcc tgtcatagag gacacattac aactggcccc aagttcaagt	2580
caggtttcta aatttgggaa gggatacaga aaaactaaag actctactgg acagtcagtt	2640
attgaaatga ttacatagaa aatgtaccaa gaattaaaaa aaaaaaaaaa aagcattatg	2700
aagggggcac cagagactcc cagagaggaa agggactatg ggctggatgc ggtgactcac	2760
acctataatc ccagcacttt gggaggccga ggagggtgga tcacgaggtc aggagttcaa	2820
aaccagccta ggcaacatgg taaaaccccc gtttctacta aaaatacaaa aaattagctg	2880
ggcatggcag catgtgcctg taatcccagc tactcgggag gctgaggcag gagagttgct	2940
agaacccagg aggcagaggt tgcagtgagc cgagattgag ccactatgct ccagcttggg	3000
cgacagagca agactccgtc tctaaaaaaaa agaaaaaaaa ggccagatga ggtggctcat	3060
gcctgtaatc ccagcacttt gggaggccga ggtgggtgga tcacgaggtc aggagatcga	3120

gaccatcctg gctaacatgg tgaaactcca tctctactta aaatacaaaa aattagccgg	3180
gcgtggtggc gggcacctgt agtcccagct acttgggagg ctgaggcagg agaatggcgt	3240
gaacctggga ggcggagctt gcagtgagec gagattgcgc cactgcactc catccagcct	3300
gggcgacaga gttagactcc gtctcaaaaa aaaaaaaaaa aaaaaaatta gctgattagt	3360
tgggcttggt ggcgggcgcc tgtaatccca actactcggg aggctgaggc gggagaatca	3420
cttgaacccg ggaggcagag gttgcaatga gccgatatca cgccactaca ctccagcctg	3480
ggcgacagag caagactcca tctcaaaaaa gaaaaaaaaa aagaaagggg ctgtgctgtg	3540
gcctggggacc caaagcacac tactgcaagg tcccagggtg cctgactcca accggagcct	3600
tgagaacatt catttgcaaa gaatgaatta aaattcagca ctattttatt ctgcaggatt	3660
ccagcaccce aaggacagtc attttttagac ccttcagtaa cgtaataagt aaccggagga	3720
tgtgctgagc ttccacttcc ccagacggtt gcctgtcaca gctcatcagg ccaacaaact	3780
tttcttaggc ctcaaatttg gaaatgttca ctctcagttc gttccttaga tgcaagtcca	3840
tcccaatgaa gtaacagggg ctcagcacct gtccaatctc attgcttccg gggacagggg	3900
cccatgagga tgtcgtttca gcccggtgac acttgggcaa agtgcccttt ggtttccctc	3960
ccaggctgga acgtgctggc tctgtgaagt tacgctgggc acaagagccc cccccaaccc	4020
ggcaggactg actgctgtgg tcagaggcgc ccttggggct ttgggagcca cagaatcttc	4080
ctgagggcag cgccggagga ggccccagtg agagtgccca ctgccaggct cattcctcag	4140
gctgccgcag gcctctcccc aaaacaggca atgcttctca gcaacctgcc ccaggagcag	4200
gccaggaag gccgccatcg gcctacagtg ctgggctctg gagggcttgg ttggtaacag	4260
gccatggttt ctatgagcca gctgggggtg gaaggacaca ggctggattc acctctctgg	4320
gcctcagttt ctgcattcaa aaagtgggaa tcatgatata tgctctatctt cttatctctc	4380
agtgtgatg tgaacctcca ataagacttt taaaaatact ctttctacct tacttttatt	4440
tttcatttat ttaagataa tgtctagctg tctcaccag gctggagtgc agtgggtgta	4500
ttacggctca ctacagcctt aacctccag gctcaagtga tctctctacc acagcctccc	4560
aagtagctgg aactacaggc atgcaccacc gcacctggat aattttttct tttagacaa	4620
ggtttcactc tgttgccag gctggagtgc agtgggtgcac tcttggtca ctgcagcctc	4680
aacctccctg ggcttaggtg atcctcacac ttcagtctcc caagtagctg ggactacagg	4740
tatgtgccag tacaccagc taatattttt gaaggatggg gtttcactat attgccagg	4800
ctggctctga actccagggt ttaagcaatc taccttctc agcctgccaa agtgctagga	4860

ttataggtat gagccacccc ccggcctata atcctaccac tttaaaaaag cctgtaattt 4920  
 tagcacttta aaaaattttt cttaaattttt tatagagatg ggggacagct gtggtctcac 4980  
 tgtgttgccc aggctggtct tgaactecta ggatcaagcc atcctectgg cctggcctcc 5040  
 caaagtgttg ggattataag cataagcctt accttacctt ttttttttga gttgcagttt 5100  
 tgttcttggt gctcaggctg gagtgcaatg gcaagatctt ggctcactgc aacctccacc 5160  
 tccccgggtc aagcaattct cctgcctcag cctcccgagt agctgggatt acaggcatgc 5220  
 gccaccacac ccagctaatt ttgtattttt agtagagatg gggtttctct atatacetta 5280  
 attttaaagc actgcattca tgtaaattgt gattaacatg gattcaagag agggagttag 5340  
 gatgaatgag ccaggcagtc acctcggtcg tcacctcca cttctctcct ccttctgaca 5400  
 gtcactgtcc atccgtttct gcagctgttt gtttgactct cctgatcatt ttgcttgcca 5460  
 cataacttgc ctctgggaa agaatgcctt gggcaggccc acatgagtag tgaaaaataa 5520  
 tctgcagtga aaaataaaac taagtagtct ggtccacaga gcagtcttat ttttctactg 5580  
 cagatgaagg agttgacatt caggcttcat tctcatttat aagtgtttta aagacacata 5640  
 cagtggattg aacagtggcc ttcaaaaaga tgtatctaca tcctaataccc tgggacctgt 5700  
 gaatgttaac caagttagga aaagggctct cccgggtgtc attaagttag agatcttgag 5760  
 atgaggagct catcgtggat tatccagggt gaccctgcat ccaaggacaa atggctctta 5820  
 gaaaagaaaa gcagaggctg ggcacagtgg ctcaagcctg taatcccagc actttgagag 5880  
 gccgagggtg gtggatcacc taaggctatg agttcgagag cagcctggcc aacatgatga 5940  
 aatcccatct ctactaaaaa tacaaaaatt agcaaggcat ggtggcgggt gcctataatc 6000  
 ccagctactc aggaagctga ggcaggagaa tggcttgcat ctgggaggcg gaggttgag 6060  
 tgagccaaga tcgcgccact gcactccagc ctgagggaga aaagtgaac tctgtctcat 6120  
 aaaagaaaag aaaagcagac agagatctga gacagaagag gagagtgaag gaaaaaggc 6180  
 catgtgaaga tgaggcagag gttggagcca tgcagccaca agccaaggaa tacctggagc 6240  
 cccagaagtt gcaagaggta ggaagaagcc tcccctagag cctccagacg gagcacagcc 6300  
 ctgccaacac ctccacctca gacttctggc ctccagcact gtgagataat caactgctgt 6360  
 tgttttaagc caccagattt gtggtaatgt gttatggcag ccacaggaaa ctaatacagt 6420  
 acctaatctt caciaacca tcttacagaa aaggaaactg aagtcagaga ggtagtggct 6480  
 tgtgcagtgt gttaggccat tcttgtatta ctataaagaa atacctgagg ccgggcatgg 6540  
 tggctcacgc ctgtaatccc agcactttgg gaggccaagg tgagtggatc acttgaggtc 6600

aggagttaa gaccagcctg gacaacatgg tgaaacccca tttctactga aaatatgaaa 6660  
 attagccagg catggtggcg tgcattctgta gtcccagcta ctcaggaggc tgaggcagga 6720  
 gaatcacttg cgcccgagg gagggaggtg tagtgagcca agattgtgcc actgcactcc 6780  
 agcctgggag acaagagaga aacctgtct caaaataaat aaaaaacaaa taaacacctg 6840  
 agactgggta gtttataaag aaaggggtta actggctccc ggttctgcag gctgtacaag 6900  
 catggtgccg gcatctgctt ggttgctggg aaggcttcag ggagttttac tcacgtgga 6960  
 aggcagagcc agagcaggtg catcacacag caaagcagg agcgagagag agagagagca 7020  
 gggaggtgtg cacactttta aatgagcaga tctcacgaga actcaccatt gcaaggacag 7080  
 caccaagcca cgaggggtct gccccatga cccaaacctc ccactaggcc ccaccccaaa 7140  
 cattgggaat tacagttcaa catgaggttt ggggggacaa atatccaaac tatatcattc 7200  
 caccctggc ccccagatc tcattgttctt ctcacattgc aaaatatagt catgccttcc 7260  
 cagtagcccc ccaaagtctt aactcatccc agcattaact caaaaatccc attcccaagt 7320  
 ccaacgtctc atctgaagat gagttccttt cacctacaag actgtaaaaa tgaaaacagt 7380  
 tatttactgc tgagatacaa tgggggcata ggcattaggt aaacattcct gttccaaaag 7440  
 ggagaaatcg gtcaaaagaa aggggctata ggccccaagc aagtccaaaa ccagcagag 7500  
 caatcattca atcttaaagc tccaaaataa cctccttaa ctccatgtcc catagccagg 7560  
 gcacactggg gcaaggggca ggctcccaag gccttgggca gctctattcc tgcggctttg 7620  
 cagaattcag tccccatggc tgctcttaca gattggagat gagggcctgc ggcttttcca 7680  
 ggtgcagggt gcaagctgct ggtgatctac cattctgggg tgtggatggg ggcggccccg 7740  
 tcccgagct ccactaggca ttgtcccagt ggggactcta tgtggggcct ccaacccac 7800  
 atttcccctc caatgggaag gctctgcccc tgcagcagcc ttcttcctgg gctcccaggc 7860  
 tttctcatac atctctgac atctaggtgg atggtgtcaa gcttccttca ctcttgact 7920  
 ctgcacacct acaggcttaa caccacatgg aagctgcaa ggtgtatggc tggaaccctc 7980  
 tgaagcagca gcctgagctg tgactatggc cctttgagcc aaggctggag ctggaacagt 8040  
 ctagatgcag gcaggagca gtgtcctgag gctgtgcaga gcagcagggc cctgtgcctg 8100  
 gacaatgaaa ccattctttc ctctcatcc tctgggcctg tgatgggagg gttgtggaag 8160  
 atctctgaaa tgcccttgag gcctttttgc ctctgaggcc tatttcctat tgtctcagtt 8220  
 attggcagtc ggctcctttt tagttatgca aatcctctag caagaggtta ctccactgcc 8280  
 ggcttgaact cctctcctga aaaagctttt tctttctttg tcacatggcc aggctgcaaa 8340



ttttccaaac ttttatgctc tgtttttacct ttaaataataa cttctaactt taattcattt	8400
atttgctcct gcatttgagc ataggggaatt caaagaagct gggccacatc ttgaatgctt	8460
tgctgcttca aaattttatgg ccacgcttgg tggctcacac ctgtaatccc agcactttgg	8520
gaggcctagg tgggcagatc acgagatcag gagatcgaga ccatcctggg caacatgggtg	8580
aaacccatct ctactaaaaa tacaaaaaaa ttagcttggt gtgggtggcgc agacctgtag	8640
tcccagctac tggagaggct gaggcaggag aattacttga acctgggagg cagagggttg	8700
agtgaagcca gatcatgcca ctgcactcca gcctggtgac agaataagat ttgatctcga	8760
aaggaaggaa ggaaggagga agggaagaaa tgtcttcccc ccagatgtcc tgggtcatcc	8820
ctcttatgtt caaacttcaa cagatcccta gggcatgaaa ataatacagc caaattattt	8880
gctaaggcat aacgaaagtg acctttgctc cagttcccaa taagttcctc atttccatct	8940
gagactcatc acctggcct tggcttgctc atatcactgt cagcattttg gtcacaatca	9000
tttaaccagc taatcgggag gctgaggcaa gaggatcact tgaaccagg aggttgaggc	9060
tgcagtgagc tgtgatcaca tcaactgcagt ccagcttggg caacagagca agatcctgtc	9120
tcaataaata aataaataaa tacataaata acttaagttt atttaaagct gcacttttgc	9180
caccatggag aaaggccagg ccagctcctt ctctctttct gcacgtgttc ctcccacctc	9240
agctgcctct gtcctcaag gaggaacaga gggagtagga aaggccatcc caggaggccc	9300
agcaccatc gatctggctc tggggccttg tgggtttatg gattcccagt gctgagtc	9360
ccctcacagg ctcttggtgg cacttggac attggtcaga agcatgtggg ccccggaac	9420
acaccttttc ctgatcatct gggaagggca gcttggtcca gcgaggccac ctgttcagcg	9480
ccacggcccg ccagacagct gcagccacag ccttgccctt gatcagagca aacaccagac	9540
atgtgtgtca tgccccaac ccactctcag gggacacatg tcctttcttg ccaggcctga	9600
gatgaacaag agagggacaa gtccccaagc ctctctctcc ttctgctc accactccg	9660
ctgttagatt ctcaaggtgg atgggtgggt aactagggca accgaccatc ctgggttacc	9720
tagaactgag ggggcatttt caggaataaa actgcaaaag tctggagcaa acaggagcaa	9780
gttggtcact ctggggctgg tggagtcagg tttccttctg caggccccct ccccgcaagc	9840
atgggtggaa cccaggacag gaacacagag caggccccag gaccgggctt gtcacttaca	9900
agtctttttt tttttttttt ttttgagatg gactcttctg ctgtcatcag ggctggagta	9960
cagtgggtgc atcttagctc actgcaacct ctgccttctg ggttcaagtg atccccctgc	10020
ctcagcctcc tgagtagctg ggactacagg tggcaccacc acgcccagct aattttttgt	10080

atttctagta gagatgagat ggccaggctg gtcttgaact cctgacctca agtgatctgc 10140  
 ccgccttggc ctcccaaagt gctgggatta cagggtgtgag ccactgtgcc tggccccact 10200  
 cacaagtctt aaaccatgcc tcagcacatc aatgccattt acaaaaaggt agagggattt 10260  
 tccaggcaaa aatagatgaa agacatagga tgattgatca tgtcctgctt aaacataggt 10320  
 ctgatgctat taagaattga gggctgggag cgggtggtca cgctgtaat ccagcactt 10380  
 tgggaggccg aggcgggagg atcacgaggt caggagatcg agaccatcct ggctaacacg 10440  
 gtgaaacccc atctctacta aaaatacaaa aaatggccgc gcgcggtgac tcacgcctgt 10500  
 aatcccagca ctttgggagg ccaaggcggg cggatcacga ggtcaggaga tcgagaccat 10560  
 cctggctaac acagtgaagc cccgtctcta ctaaaaaata caaaaaaat tagccaggca 10620  
 tgggtggcggg cgctgtagt ccagcaact tgggaggctg aggcaggaga agaattggtgt 10680  
 gaacctggga ggtggagctt ccagtgaacc gagatcacac cactgcactc cagcctgggc 10740  
 gacagagtga aactccatct caaaaaaaaa ataaataaat aaataagaat tgtagtatt 10800  
 ttgcagggtg gacaaatgat tctgtttctg tggcagaatg ttctcaggag atctcttttg 10860  
 aactctcatg gaaagcatca tgctgttggc aacatcacat ttatttttat ttatttatta 10920  
 ttttttagag acagggtctt gctctgttgc ccaggctgga gtgcagtggc acaatcacag 10980  
 ctactgcag cctcaacctc ctgggctcaa gcaatcctcc tgccctagcc tcccaaagta 11040  
 gctgggacca caggcgtgag ccactgcact cagcccaatg taccttcaat atttacattt 11100  
 ctggcaaagg tagcaaaacc ttaacaaatt ttgaatctag ataataaaat tatgaggctg 11160  
 ggtgcagtgg ccctgacagg gatggctcac atctgtaatc tcaacatttt gggaggccaa 11220  
 ggtaggcgga tcacctgagg ccaggagttt gagaccagcc tggccaacat ggtgtaaccc 11280  
 tgtctctaac aaaaatacaa aaaaattagc cagacgtggt ggtgcacgtc tgcatccca 11340  
 gctactaggg aggctgaggc aggagaattg cttgaacccg agaggcagag gttgtgatga 11400  
 gccgagatcg cgtcattgca ctccagcctg ggcaaaagca agagcgaaac tctctctcca 11460  
 aaaaataaaa aaaaataaaa ttaatgaatt aattaaaata aaataaaata atggatagtc 11520  
 actgtaaaga aaaaataaat gtatatatca gccacaagt gatggaatag agcaccacct 11580  
 ctccctggct ggacagatac atcccacaac acctggaagg cggtcccatg tagaactttc 11640  
 tggactgctt gaggtgctgt gctggagcac ggtgacagag gagctggacc atggacctcc 11700  
 cccggccccc accaagggcg aggtccccct gtggtgggtc tgaggagggc atccgtatgg 11760  
 cctctgcggc ttgggcaggg aatttggggt ccaagtactt ggtgcaaagc ctggaaagag 11820

ggtttgggtg	ctgagggcat	atccccctggg	ccacatgggg	gcagaagtgg	ggccccctga	11880
agcttgaggt	cctgggcagg	ggcatctatt	ttgctgtctg	aggccttcag	tacttgaagc	11940
aaaatggagg	cagaatgtcc	caccttaatg	cccctgattc	ctccaaacca	attccagaga	12000
cagcaagggc	cagaacaggg	atggccctgc	ccagggtcac	gcancgagga	agtggccagg	12060
ctgggatctg	aaccaggct	aatccccctc	cttgctctcc	tccaggccct	cacccttgca	12120
tagagccctc	cagctcactc	atcctcgccc	agctccatct	cctcagcttg	taaaccccc	12180
cgggattttc	ctttcttaaa	aaacaaaggc	ttggccaggc	acggtggctc	acgcctgtac	12240
tttgggggtg	gctcccagca	ctttgggagg	ccaagggtgg	cggatcatga	ggtcaagaga	12300
ttgagaccat	tctggccagc	atgggtgaaac	cctgtattta	ctaaaaaaaa	aaaaattaac	12360
tgggcatggt	ggctagctac	ttaggaggct	gaggcaggag	aatcgcttga	acctgggaga	12420
aagaggttgc	agtgagccaa	gatcgcgcca	ctccacttta	acctggcaac	agaacaagat	12480
tccgtttcna	aaaacaaaca	aacaaacaaa	taaacaaaaa	aaggcggagc	gcgatggctc	12540
gcgcctgcaa	tcccagcact	ttgggaggct	gaggcgggag	gatcacttga	ggttaggagt	12600
ttgagaccag	cttggccaac	atgggtgaaac	cccatttcca	ctaaaagtac	aaaaatcagc	12660
cagggtgtgt	ggtgggtgcc	tgtaatccca	gctactcagg	aggctgaggc	aggagaatcg	12720
cttgaaccca	tgacctggag	gctacagtga	gctgagattg	cgccactgta	ctccagcttg	12780
ggcaacaaga	tttgtttctc	taaaaaaaaa	aaaaaaaaaga	ctggcccttc	cccttcagct	12840
cttcctcagg	gtccctgagc	actctacacc	cccgtctaca	ctgagcactc	caccctgctg	12900
tctacactga	gcactccacc	ctgccatcta	cactgaggac	tccaccccac	tgtctacact	12960
ggctgcctcc	cgccctcacc	tctgtctaag	gccattcccc	gctgcatctg	tcttctagat	13020
tctgcagcct	tcagcacgct	gggccccctc	tttgtcccct	tgagccacct	ccagcctccc	13080
cctgagctgc	tactcctctc	ccagcagcct	ccaccaagc	ccctccagtc	cccaagctgt	13140
cccttgcatc	cagcactgcc	cttcacgtg	ccccttcctc	ccagcttcac	agcaggggtg	13200
ggcctccagg	ccctgcccac	tgtgcccac	cacaagtgtg	ggtgggagct	ccgaggggag	13260
gcaggggtgt	gcatggactt	gggacgtcca	agtctgggac	caggggcagc	tggttggtgg	13320
agtgtggagg	gggataggga	ctttcaggta	gagaggctgt	aggggcaaga	tcgggacggc	13380
ggatgtccct	aaggagggtc	ctgacctggg	aaatattgtg	cagcttcctc	tttgccattc	13440
ctggagctca	gacactggcc	ggctctcacc	ccgcccttcc	tgaggacac	agctccatcc	13500
cagtgagttc	ctagtgtaga	catctccagc	agcacggatg	ggaaaggaag	tcacaaagg	13560

tgcccaggac	cggaggcttt	ttctggaggt	ggcagaggag	ggtgtgggtc	tcagggtctc	13620
ggctgagggc	aagcgtggga	ggtcttaggt	ctgcaccagc	cccgtgaagg	cccctcctgc	13680
tccttggtgg	agtcctagag	ggaacagcag	cccctaggct	ctagcaggag	tgggtagggg	13740
cttttctggc	ttcctactgt	gccagcagga	tagctgggcc	tggcactgag	cccaaagatc	13800
acatgccggg	gcattggcgc	agtgaggaac	agacccttgc	caaagctggc	aaagaagacc	13860
ccatgggggtg	cagctggtga	agctgagagc	tcaatgtttg	ggggagcctg	gcaaaagggg	13920
tcctcccctc	cctctgcagg	ccaggatcgc	aggttttccc	tacatgttgg	taattctcaa	13980
acaatcccat	ggccactgga	gcaaagatca	cagtgggcgg	cggcctcggg	agcagtggac	14040
agggcacgca	gtgcctttga	tgccagagcc	ctgccccaa	agtcaacaaa	ctctgcagcg	14100
gactttgcac	cgggactttg	ttttcaccat	acaaggaaag	ggacagatca	caggccctct	14160
cgtgcctc	gctgagccgg	aagctgcagc	gtgagctctc	tcaagcccca	tttctaggtt	14220
ccccaggcgc	accctgagc	cctactcgc	ctattaagtt	ctcctaatag	cccttcaagg	14280
tcttaatgta	tgtccattag	acagagggga	aaactgaggc	gagggcaagt	gacttgaccg	14340
aggttcctcg	gcgagcaggg	cgtggagctg	agaacctcgt	tattactgct	ccccacacaa	14400
ccctctggcc	gttcttgga	gaaggctgag	ccccgggggg	gccagagtga	cccaaacacc	14460
atgggcccgc	tgcggttaaca	cgtgcggcca	cgaaggggca	gcagtttccc	gcccggccgg	14520
gctctctccg	gcgctcagta	tcgctcccag	gccaagaaga	agaaactcgg	ggaggagggc	14580
ggagggggct	gcgtagggag	gcgtggaaga	tggacgtggc	caggggagtg	gcagctgcac	14640
acagtggatg	ctgttaagat	gaagggaaag	aacgtgggct	ccgagatcac	tggacacggt	14700
tccacctttc	ttcccgctca	ctgcatggcc	ctgggcgggt	tggtgaacct	ttggaaacct	14760
gtttttcctt	ttttcctttt	ttttgagac	agggtcttgc	tctgtggccc	agactggagt	14820
gccgtggcac	gatcttggct	cactgctgcc	tcccagggtc	aagtgatcct	cccagctcag	14880
cctcctgcgt	agctgggacc	ccaggatatgt	gtcaccacag	ccggctaatt	tttgatattt	14940
tttgtagaga	cgggatttcg	ccgtattgcc	caggctggtc	tcaaactcct	gagttcaccc	15000
gatcttctctg	cctcagcctc	ccaaagtgtc	gggattactg	gcatgagcca	ccgcacccag	15060
cagagacctc	agttttctaa	cctgtgccag	caggaataat	gatagctgcc	tagcttggtc	15120
gtgctgggaa	ttaagtaaga	tgaccgggta	gcaaatatga	agtattactg	gacacagagg	15180
gccccaggct	gggttagcag	cggtggctcag	ggctgctgct	tcctggcctg	agctcgaagg	15240
agggccctca	ttaccacctg	ggtgagtcct	cgtccaagcc	tggcactgct	gcgtgggaat	15300

aacttctgcc acccaagttg gcagattgtg tgcaaagtta agtcctgact ctgtggggtg 15360  
gacttcgagg cctcttcac cggactgctt cgggtgactg cattcgcacc tcctcctgtt 15420  
cctgggttaa cacagcccag ctttcctcct gctgagccct ccctgggcct gctgtcaccc 15480  
tcgtgccgct gtgcctcgca gtgccactcc ctgtaccctg aatactttgc cctgcctctc 15540  
caccagctg agagtcaggg ccctgtgag gctctgccc gcccgctc cgggtttctg 15600  
cctctgctga gcatttcct gcattgattgc ttctgagagt ccccccagcc tgtgagcttc 15660  
tcaggactgg gacagcttct caggaccgag gcttcctggg ctgcttgcaa ttttacaggc 15720  
gggcacattt tcccttgcc aacatcagag actggacatc tgcagatctg tgctagccac 15780  
tgagcaccca ggcacccag caggtagctc tgtaaccaac ccattctgta aagctgaggc 15840  
tcagagaggt gaagcgctg gcctggggcc acagcctgcg tcagctgcag agccaggagc 15900  
tgagatatgc acctgcggct ctgctcacag ggtcctgcac agactgctgc tggagccacc 15960  
tatgtagagt caagagagtt catgttaact ccctctcaca tccctcagcc aggggtggggg 16020  
ctgacgatag aactcaggg atggcctacc ctcccaca acccccgta gggttgccgg 16080  
atctccttgg aagaaaagtt ctgggcagaa ttccaccgtt ggctggcct acactctcct 16140  
tagtggctta ggaccctcag cgggtggataa gttgtgggca gaagagatgc aatcaggatt 16200  
ctcaccact cacccttgc cagcccaat aagctcaata agctgggctc ggtctgagga 16260  
agtgtccagg aaatgtgcaa atggcctggg acagccctgt gttcctttca gtaaggttgc 16320  
tgaagggtgag gctgaaagtt ggagaaacag aagccagtgc ttatggtttt aattaagata 16380  
atggaatgta tgtatgtatg tatgtatgta tgtatgtatt tatgtattta tctttagaga 16440  
tagagtctca ctctgttgcc caggctggaa tgcggtgaca caatcatagc tccttgagc 16500  
ctcgacttcc tatgccc aaa tgatcctcct acctcagcct cctgagtagc tgggactaca 16560  
gacacacgcc aactatgcct agctaatttt tatttctatt ttttgggag actgggttct 16620  
cactttgttg ccaggttg tcttgaacct ctgcttcaa gcaatcctcc tgccctagcc 16680  
tcccaaagtg gagggattac aggtgtgagc caccacacct ggctggaat ttatttgtat 16740  
tctgcttata aaattaatac attcttattg cagaaaagtt tgaaaataaa agaaaggaca 16800  
aagaacaaaa agcgtatata atttcacagc tcagatctca ctgctattaa catttttatt 16860  
tactttcagg cttttttctt tctaggtaca tatgcagaga ttattttatt ttattttatt 16920  
tattttatat tttattttat attttttatt tcattatttt attttatttt attttattat 16980  
ttttagagac agggcctcac tctgtcaccc aggtggaggt acaatggaggt gatcatagct 17040

cactgcagcc tcaaacacct gggctcaagc aatcccccca ctcagccttc tgagtagttg	17100
ggactaaagt gtgagtcctgg ctaatTTTTT ttactTTTTTg tattgacaga ggtctcacta	17160
tggtgcccag gctgatctca aactcctggg ttcaagcgat cctcccacct tggactecca	17220
aagtgcctggg attacaggca tgagccacca tgccctggcct aaaatgccac tttttgtcat	17280
ttactaaaat cccatggaca ctttgacatg tctgtattct atgctattga tctgactgtt	17340
ggcatctaca tcattatggc catctatcat ctatcataat ccattttaac attaaaattg	17400
tgctgctgct tagatTTTTt tggcctgtct cctatttgta ttcttccaga taaattttag	17460
aatcatttta tcaaattccc cttgcagaaa aagccctatt ggattttggt tgaaaaatac	17520
tgaattttta cattaactta ggaaagggct gggcacggtg gctcacgcct gtaatcccta	17580
cacttttcga ggccaaggca ggtggatcac ttgaggttgaggagtttgaga ccagcctggc	17640
caacatgggtg aaactcggtc ttactaaaa atacaaaaat tgccaggcgc attggctcac	17700
ctgtaatccc agcactttgg gaggcgagg tgggtggatc acgaggtcag gagatagaga	17760
ccatcctggc taacacggtg caaccctgct tctcctaaaa atacaaaaaa ttagccaggc	17820
gtggtgggtgg gcgcctgtgg tctcagctac ttaggaggct gaggcaggag aatgggtgtga	17880
accaggagg cggagcttgc agtgagccaa gatcgcgcca ctgcactcca gcctgggcga	17940
cagagtgaga ctccatctca aaaaaaata ataataataa tacaaaaatt agccgggggt	18000
cgtggcgtgc acctataatc ccagttactt gggaggctga ggcaggagaa tcgcttgaat	18060
ccaggagggtg gaggttgcaa tgagcagaga tcgtgccact gtactccagc ctgggtgaca	18120
gagtgcact ctgtgaaaaa aaaaaaaaaa ttctgaagga ttgagactct tagactctta	18180
gggtcttcta tccaagagca caatatagct tttcatgtat tcaagccttt ttcaatgcat	18240
caacagaatt ttacagtttt tttcatgata tctgtctatt tcttataaaa tgtattccta	18300
gatattctgc atgttttccg gttgtttgtt aataaatatt tttcatttgt cattatttcc	18360
taattggctg ttatttgtat atatgacatc tgttgaattt tttgattact ttgaaaatgg	18420
ccattctttt gtgttttttt ttaactttct attttgagat aattttgact tacagaagat	18480
ttgcaaaaat agtacagaga gttcctgttt ccccttatg ttaaccagt ttctccttat	18540
gttaacatct tacataacta cagaacaatt gtcaaatcta agaatcaacc tgggcacaat	18600
getattaact aaactgcaga agctgttcag atctcaccag ttcttctact gctccccctt	18660
tctcttccag tgttcaatcc ggaatcctac attatattta gttgtcattt ctctttggtg	18720
tcttccaatc tgtgacagtt cctcagtctt tctttgtctt tcatgacttt cattttttta	18780

tacttttgaa aaatactggc cgggtgtttt gtagaacgcc ctcagtttgg gtttgccctga	18840
agttttttgt gattagatcg aggtcatgca ttattggaga gggtgccacc gcctcgatgt	18900
gcaagctcaa tgcacatat cagaggggtt gtaatgtcag tttataccgc cggagaccct	18960
aacctggagc atttcgtgaa ggtgctgtct gccaggattc tccactagaa agttactatt	19020
tttccctttt taattactga atgtctgagg ggaaatactt tgagactatg caaatatcct	19080
gtttctgctt taacttcggc tactaagtt tagcattcat ctatggatct cgttatagc	19140
aagtattact gtggagttct aatggtaatt ttctgtttct ctcattcctt caacctttat	19200
taatatgctt ctctctact tattcatttt gtttcagttg tttataccaa catggatttg	19260
tggatattgg ttttattctt tgggttgcaa ttgaatccta tcattatttt gttagtcagt	19320
tgttccatcc gaccttggtc attaggagcc cttgaaattt ggctcccatg cttttttttt	19380
tttttttgag accgagtctc actctgtcac ccaggtttga gtgcagtggc atgatcttgg	19440
cttctgcaa cctccgctc ccaggttcaa gcaattctcc tgcctcagcc tcttgagtag	19500
ctggtattat aggcgtcca ccacctggc cggctaattt tttgtatttt tagtagagat	19560
ggggttttat tatgttggcc aggctggtct caaactcctg acctcaggtg atctgccgc	19620
ctcggcctcc caaagtgtg ggactacagg cgtgagccac cacacctggc ctctatgcc	19680
attttaacat gcccgctctt tctttttctt tctactttc tgtgactgta agaagctcca	19740
ggatacattt ttgctgcct agacttagcc tcaatcagtt ctcagaaaag ctctggttct	19800
ttttatggga tacttagaaa actagctctg tatggcctgg cgcggtggct cacgcctgta	19860
atcccagtac tttgggaggc cgagggtggc agatcacaga tcacgaagtc aggagatcaa	19920
gaccatcctg gctaacatgg tgaaactctg tctctactaa acatacaaaa aattagtcca	19980
ggcgcggtgg cgggcgcctg tagtcccagc tactcaggag gctgaggcag gagaacggca	20040
tgaaccggg aggcggagct tgcagtgagc cgagatcggc agccactgca ctccagcctg	20100
ggccacagag cgagactccg tctcaaaaaa aaaaaaagga aaaagaaaa agaaaactag	20160
ctctgtatgc tagttttttt tttaagacag ggtctctctt gcccagctg gagtgtagca	20220
gcacgatcac agctcactgt agcctcaacc ttctgggctc aagcaatcct cctgcctcag	20280
tctctaatgt agctgggtct acaggcatgc accaccgtac gtggcaattt ttaaaaaactg	20340
ttttagagga tggagtctcc ctatgttgcc tggctcggaa ctctggcct caagtgatcc	20400
tctgcctcg gcctcccaa gtgctgagat tacaggcatg agccactgta cctggcctgg	20460
ccaaggctctg tcttttttta aaagaagttg ttgtatagtt gttttttttt ttattttttt	20520

ttctgagacg gagtctcgct ctgtcgccca ggctggagtg cagtgggtgcg atctcggtc	20580
actgcaagct cgcctccca ggttcacgcc attctcctgc ctcagcctcc cgagtagctg	20640
ggcctacagg cgcctctac cagccccggc taattttttg catttttagt agagacgggg	20700
tttcaccgtg ttagccagga tggctcgcgt ctctgacct cgtgatccgc cgcctcggc	20760
ctcccaaagt gctgggatta caggcgtgag ccaccgcgc cggcctgttg tatagttttt	20820
atctcgagtt ttctagcgat ttaatcatat tggttacaaa aaaggatgat ttactacct	20880
cctttccaat gtttctacat attttttcat tttatctaac tgcattttta aataaacttt	20940
taattttaga atggtttcat atttacagaa aatgtgcaaa gatagtacag agagtctctg	21000
tgtactccac acccggtttc cttattatta tcttaacgtg atacacaatt aataaaccag	21060
taacattatt attcactgaa gtccacactt tctttttttt tttttctgag acggagtcta	21120
cttctgtcac ccaggctgga gtgcagtggc gcaatctcgg ctactgcaa cctccacctc	21180
ctgggttcag gcaattctgt ggctcagcat cccaagtagc tgggaataca ggtgccccgc	21240
accacgcccg gctaattttt tgtattttta gtagagatgg ggtttcacca tgtagccag	21300
gatggctctg aactcctgac ctcgatgctt gcctgcctca gcctcccaaa gtgctgggat	21360
tacaggcgtg agccaccgcg cccggcgtcc atactttctt tagatatcct tcctttttac	21420
ctaacgtcct tcttctgggt caggatccca tccagaaagc aacattacct ctcgccatca	21480
cgtcttcaca ggctccccct gacgggaaga gttcctcaga ctttccttgt ttttgttgac	21540
cttgacagtt ttgaggagga ctggtatctt agtctgtttt gtgctgctat cacagactag	21600
ctgagaccga tacatgatac atgaaaaaaaa atgtattctt acagttgtgg aggctgggaa	21660
gttcaagacg aagttgctgg ttggtttggg ctctggtttc aagatggcgc cttgctgctg	21720
catcctctgg agaagaagaa tgcggtgtcc tctcactgca gaagatggaa gcgctaaaag	21780
gaatgaactc cctttgccaa gccattttat aatgggcatt aatccacaaa ggatgaaacc	21840
ctgagaaaca tcaagcttta aagcactggg tctcaacctt tttggtctca ggagcccttt	21900
atactcttaa aacgttttga ggatcccaaa aaaaggcttc tacaggttcc atcttttaat	21960
atttaccata tcaaaaatta aactgaaaaa attttaaatt atttattcat ttaaaataac	22020
aaggataaac ccattacatg ctaacataaa tcatgtattt tatgaaaaat agctatatatt	22080
atcaaaacaa aaattagtga gaagagtggc atgtataatt ttttttgttt attttttgtt	22140
tttagatgga atcttattct gtcgcccagg ctggagtgca gtggtgtgat ctgggtcac	22200
tgcaagctct gcctcccagg ttcacacat tctcctgcct cagcctcctg agtagctggg	22260



actgcagggtg cctgccacca cgcccggcta attttttgta ttttttagtag agatggagtt 22320  
 tcaccgtggt agccaggatg gtcttgatct cctgaccttg tgatccaccc gcctcagcct 22380  
 cccaaagtgc tgggattaca ggcttgagcc actgcgtctg gcctaaattt ttgtgaatgt 22440  
 ctttaatgcc tgccttctca tatttgtttc tgcattcaag ttattgcaaa atgttggtgt 22500  
 ggttgaagtt tgtaaagaaa atgtggcctc atacagttgt gtagttggaa aggcaagagt 22560  
 attttgattc tctcttcaaa caactatgga caacctgctg ttacaaaacc agaatgcaaa 22620  
 aagttgtagt aaatacaggt taggtgtagt gtggaatctg aaagcatgtg aatgaacttt 22680  
 ctgagttttg taacattaaa gtccagttgc gtttaagctac tgtgatagca tatagcattg 22740  
 tcctaatact ggaattagta tcagaagtgg ggtgctactg ttaataaata aaaagaaata 22800  
 aataaatcat gtgatactgg ctccagaagtc aggcagtagg ctgtgtggaa cctgacatca 22860  
 cgccatgtaa tacattggca accatttgat ccagctgtct gtcattgatga cttggaaagt 22920  
 caaccacata cttacagagc ctgtagacat aggggaaaat agtataaaac agaatactaa 22980  
 cagtggacct tggttcttgc cagttgcatt tagccaaata ttaaacaaaa gagatattct 23040  
 tgggcagcaa ctggaccatc ttcaagtaaa agtgaaaggt aataaacaga gtccagacat 23100  
 ttgtgcccac gcggttgaag aaaaatccag ttgcttctag acaccgtata tgaaaacaac 23160  
 gctgaaaaca agcctttgag tggtaaaggc cgattaacac tcagcgcggt aacaaagacc 23220  
 aggtgggcta acccgaaatg aaatgagaag cctgtggtga tgaggaggca gagaagtaaa 23280  
 atcaagtttg agcatttcgt ttaggagagt ttgggctctg attacttgca catgcaaacg 23340  
 aactggaaac aaacagatca gatgtctacc acttcttcga gggaattgca ttgccaaaga 23400  
 agtcatgaaa gcagactcta tactgattag gcattaaaac aaaaacaatc tttaggcccc 23460  
 taaacttgca tgggcaggaa gtgggctgtc aaagctgttc atcctctaag gtggacctag 23520  
 ttcttagtcc ccagtataca cttcagatgt ggccctggag gacactggac atggaggacc 23580  
 toccagagga tgaggctagg gcttcatttc tccaatgacc tcagctgcct ctatttcccc 23640  
 ttcttctctt ggaagtecta tcatcgttat tattattatt atcatcattt ttattttgag 23700  
 ataaggtctc gctctgttgc ccaggctgga gtgcagtgac atgatcatgg ctactgcag 23760  
 cctcccagg ctcaagtgat cctcctgcct cagcctcctg agtagctggg agtacaggca 23820  
 catgccacca tgcttggtca tttttttttt cagtagagat agggctctca ctatgttgcc 23880  
 agggctgata tcaacctcct gggttcaaga gatcctccta cctcagctcc tgagtagctg 23940  
 ggattcgggt gcacaccacc atgccaacta atttttaatt tttttttgta tggacaggat 24000

gtacagtgtt agaaatggat tgcttgcaga ggcaggagga tcacttgagc ccaggagttt 24060  
 gatcacactg tgaacctatga tgcacccct gcactccaat ctgggcaaca gagtgaagacc 24120  
 ttgtctcaaa aaaaaaaaaa aagagagaga gagagagact caaagatagg caaaaaagtg 24180  
 ggaaagcttt atagtggaca aaaaggaacg ctctaagtct gccctattgg catggtgctg 24240  
 aagtggtggct aactagagat aggggggtact atgtggttga ctatgggtgc atctttggct 24300  
 ttccctgggt gatcctaagt tggaagcagg gacaaaaatt aggggaagctg ttagttatct 24360  
 atcagttctt ggcagtagtg gactggttgt gatagaagtt attgttttgg ccagggtgcg 24420  
 tggctcatgc ctgtaatcct agccctttca gaggttcaacg tgggtggatc aggaaggagg 24480  
 gaggatttgg gaggtcagga gttagcctgg ctaacctggc gaaatcccat ctctactaaa 24540  
 aatacaaaaa ttagctgggc gtggtggtgc atgcctataa tcccagctac tggggacgct 24600  
 gaggcaggag aatcagttga acctggggag gcggaggttg cagtgaacca agatcgtgcc 24660  
 caatttcac tcaaaaaaaaa aaaaaaagt atcgtttagc ttctcgtatt gttactggac 24720  
 gtagtaatct ggcttctgc aagtctaact ttcagcagac tggctacatg ggctgtgtac 24780  
 tgtagataag gcagtaagta aagcaaaaat tgatagagca tcaaggataa atagaaaatc 24840  
 cgtaatcaag cagaagattt gaacacttca ctttcagtaa ctgataaaac aagtagacaa 24900  
 aaaaaatcag taaggatgta gaagatttga acaacgtaat taacaaactt gacttgattt 24960  
 acacgtctag aaccctgcag aacacacact ttttcaagca tactcagaac atttatataa 25020  
 agtgaccata tgggtggacca taaagcagtt tcaacaaatc tcacaggagt aaaataacag 25080  
 accgtgtttt ctgaccgtaa gtacagttaa cctagaaatt gaaaacaaaa agctagaaaa 25140  
 acccatgta tctggaaatt ttaatatata ctttgaaata acaaatggat cagagattaa 25200  
 ttcaaatagg aatttagaaa taccttgaac tgaaaaataa tgagaatact ataccccaaa 25260  
 actgtggggt gcagctgaac agtatataga cgaaaagtat actcatatgt gcatacctta 25320  
 aggagcgggg aggattgaaa gttaatggga ggcaaaagca ggtggatcac ttgaggttag 25380  
 gaggttcaaga tcagcctggc taacagggtg aaaccccatc tctactaaaa atacaaaaaa 25440  
 ttatccaggc gtagtgaggc tgaggcaaga gaatcggttg aaccaggag gcagaggttg 25500  
 cagtgaagcg cgattgcgc actgcacccc agcctgggag acagagcgag actccatctc 25560  
 aagaaagaaa aaaaaaaaaa aaaaggccag gcgcggtggc tcatgcctgt aatcccagca 25620  
 ttttgggagg ccgaggtggg cggatcacga ggtcaggaga tcgagactat cctggctagc 25680  
 acggtgaaac cccgcctcta ctaaaaatac aaaaaatta gccaggcgtg gtggcgggtg 25740

cctgtagtcc cagctactca ggaggctgag gcaggagaat gtcatgaacc caggaggcag	25800
agcttgcaagt gagccgagat cgcgccactg tactccagcc tgggcaacag agagagactc	25860
tgtctcaaaa aaaaaaaaaa gttaatggga taaacatcca tctcaagaag ttagaaagga	25920
atgacaaata aaccaaaaaa aaaaaaatca aaagaagaaa atcataaggt caagactata	25980
aagagagtgg ctgggtgcag tggctcaggc ctgtaatctc agcatttttg gaagcagagg	26040
tgggcagatc acttgagccc aggagttcaa gaccagcctg agtaacatag agagacctca	26100
tctttgctga aaataaaaaat aaaaaattag ccaggcatgg tggtagtgag gtgggaggat	26160
cacttgagcc taggaggttg aggctgcagt aagccatgat tgtgccactg cacttcagcc	26220
tgggtgacag agtgggaccc tgtctctaaa aaactaaaat aaggctgggc gcggtggctc	26280
aaatctgtaa tcccaccact ttgggaggcc aaggctgagg tcagcagttt gagaacagct	26340
tggccaacaa gatgaaacct catctctact aaaaatacaa aaaattagtt ggggtgtggtg	26400
gcatgtgcct gtaatcccag ctacttagga ggnnnnctnt ngattatatt ttctccttcc	26460
tacgtcgta ttggactgaa ttcagaatga tgactctcat tggagctctt cctgtctcct	26520
aactacagtg gcttccgacc ccactctggt ttccacttca cccctctgct gtcatacga	26580
gtagatactt ccttccttct ttctcacttg ttgctcttcc tcaaccccc ccggttggtgt	26640
cccctcctct ttatcttttt ctgcgcacac ctgcgttctc ttgccctctt atcatccctt	26700
tctcgaggcg gtcccttctt ttatccagct taaatacctt ctctctgttt tatttggggg	26760
ttgggttttt atctctcacc ctccctctaa ttctcttctt ctttccgcac ccatcaagcc	26820
tctcgtggtt tctcttctct tactctcggg tccccccct ctccctctct ttttttcttc	26880
acccccccaa gcgctttgcc ttttttttct ttgcccttta ttcccccc	26928

<210> 7

<211> 29430

<212> DNA

<213> Homo sapiens

<220>

<221> unsure

<222> (4336), (4345), (4349), (4392), (4447), (4490)

<223> Identity of nucleotide sequences at the above locations are unknown.

<400> 7

aggggaaggg ccggctccgt agctcacacc tataatccca gcactttccg aggagagagg	60
atcatctcag gccaggagtt caagaccagc ctgggcaaca cagcaagacc gcacatctctac	120
aaaaacttct tttaaagctt aaaaaaaaaa aaaaaagcaa agaggacagt tcaggagaaa	180
agcctgtaga ggcagcacac taaggaggag acgcagccca ggcaccagga ggggctggcc	240
atgggcactc actcctccag caggcgagtg cccagcacca gctggcccac ccagacaccc	300
aggacacggc ctgaatggct ccgtattcac gtgggtggta ataaacaagc aatacacata	360
gccaataagg acaccttagt aatgttacat cataaacgct gcagatcagg gaaatgggtg	420
aggggtgaagt ggggtggggg gctgcatgct acatgagaag tgggtcgggg ggctgcatgc	480
tacctgagac agagcaggcc ttgctgggaa agaaggagcc ggcaggcctg ggcaaaggtc	540
ctggggtggg agcacactgg agcagagtgt gggggtagca tggcgggtgc tggctcctctg	600
ggcgccttcc caccacgtca tgtgcccattg tgcccagggt ctctcgtttc acagccccct	660
gaagctcagg ggtcacagct acacagcccc cagatacctt ggctgcccc aggtcattcc	720
atccagtgat ggacctgctg acctctagcc tgacctctgg gcagcgtaat ttgagaagga	780
ggagaagggg gggcaacaga cctggggcga tgagggatgc acagggtggc agacacctga	840
ggctgcacct tggagcctca gttctgggtg tgggtggggg atggacaggc tgagggctga	900
agcagctggg cccggccacc atcacacccc aggaccacc agatcaccat gaaaaaccga	960
atgtcaactg gcagcccaga gtgcagaaca aacctttcag aaacacgggtg gtgactgccg	1020
catcatgaac ataaaataat tacgcctctc cccagggat caccctgca ggagtttgtc	1080
ccaagaaaca ccagaaagaa ggaaaacgtc tgagtcacaa tatttctga ggccttattt	1140
gtaatagcaa aaaaaaaaaa aaaaaaagaa caatctccag cggcaggggt aactagacta	1200
ttgtctccgt ggaaaggtag caccaattaa ctagtaacaa aatgactgcg gtaacaacaa	1260
aacgttcgac atgtcaacac caaaaaccac acaccagca taaccgtgaa ccatgatttc	1320
tactagaatg aatggcagtt atgagaaagc accagcggag acaaagattg aaaaagtaaa	1380
gggtggcctca ttagggagac aagtctctgg gtaatatatt gtaatactgg taaatatata	1440
gtttttaata tattttttta ttccaaattc catatatgtt cctatgaagc tatttctgca	1500
aatatttttt tcaggaccgt acatcacaaa ggcaaaaggg ccaggtcagc tctccagctg	1560

agagtgacca	cttcagagca	gacggcagac	tccaggggta	gcaagcctgg	ctgagacctg	1620
gcccattgaca	atcactcaac	ccctctgacc	tcaacatcct	gtctgtgaaa	tggggataat	1680
tactgcacct	ccacatcaca	gagtgcgagg	cttaaacagg	atgcttcata	gaaaagcgct	1740
caagaggtaa	cagccgggag	ggggtagtgg	ttttcattaa	ttaaatgttg	ccttcaccca	1800
gccttggggc	agctccaaca	caaagcacac	accatccact	cagactcagt	tgccctggatt	1860
caaagcccgg	cctggcctcc	agctgtgaga	ttccgggcag	gatttcccat	ctcccagagc	1920
ctcagtttcc	tcattcatga	aacaggaagt	gatcattcct	tttattttta	tttttatttt	1980
tatttttgaga	cggagtttca	ctctagttgc	ccaggctgga	gtatgatggc	gcaatctcag	2040
ctcactgcaa	cctcggcctc	ccagtttcaa	gcgattctcc	cacctcagtc	tcctgagtag	2100
ctgggattac	aggcacacgc	caccacgccc	agctaatttt	gtatttttag	tagagacggg	2160
gttttgccat	gttggctcagg	ctggctctcg	actcctgacc	tcaggatgat	cggccgcctt	2220
ggcatcccaa	agtgtctgga	ttacagggtg	gagccaccaa	gccagttga	caactgcttt	2280
taaagacacc	tctggctgct	gtggaaaaca	gcctggtagt	gcctcaaaaa	gttacacata	2340
gaatgatcct	atgaccagta	attccactcc	tacatatata	cccaaagaa	ctgaaccctt	2400
ctactcatgt	atgtacacat	acaggtaac	gcattgttaac	agcagtgttc	acaaagccaa	2460
aacatggaaa	cagctcaa	gtccataacc	gatgaacgga	taaatgaaac	gtagtctatt	2520
caccacctga	cggagggtgag	agggggccata	aaaaggaatg	atgcataaaa	acgaatatta	2580
tggccaggta	tgggtggctca	cgctgtgaat	cccaggactt	tgggaggctg	aggcgggagg	2640
atcacgaggt	aaggagtctg	agaccagcct	ggccaacacg	gtgaaacccc	atctctacta	2700
aaaatacaca	aattagctgg	gcattgggtga	gggcgcctgt	aataccagct	actccggagg	2760
ctgaggcaag	agaatccctt	gaacctggga	aacagagggt	gcagtgagct	gagattgcac	2820
cactgcactc	cagcctgggc	gacagaccaa	aactccgttt	cggaaaaaaa	agaaaaaatt	2880
agccagggtg	gggtggcgggt	gggtccctgt	aatcccagct	ctacttggga	tactgaggca	2940
ggagaaccac	ttgaaccggg	gaggtggagg	tagcgggtgag	ctgagattgt	gccactgcgc	3000
tccagcctgt	gtgacagaag	gagactctgt	ctctaaaaaa	caaaaacaaa	aaaggcccca	3060
cgcggtgtct	tacacctgta	atgccaacac	tttggaagc	caaggcaggc	agatcatctg	3120
aggtcaggag	tttgagagca	gcctgggcaa	cacggtgaaa	ccccatctct	actaaaaata	3180
cagaaattag	ccagggtgtg	tggcacatgc	ctgtaatccc	agctactcgg	gaggctgagg	3240
caggagaatc	gcttgaaccc	aggaagcgga	ggttgcagtg	agccgacatt	gcaccattat	3300

actccagcct ggggtgacaga gtgagattct gtctcaaaaa aaaaaaaaaa aaaaaaaaaa	3360
ctaaacaaaa gcaaaaaaac caatgagtaa tgttgtaag tgaacttcat cccaatggga	3420
atgcagataa tttgttttaa aggcaccatg cactctgggc aggctggctt cccctgggaa	3480
cgtcttcttt tgcttgatt cccagttggt ttaatcgggc gtagaacact ttcttcaatc	3540
cgggattcag gcaccttgc tcagcacaaa ctgagtacac cccgactct gctgtgggtt	3600
cttggcacta ttaggagaat gtgagggggt gattcagatc tatctctagt ggggtgcatgt	3660
ctgccactcc caggaacgcc cacttctggc aagtcagtgt cagagaaagg ccagctcgtg	3720
gccccctctg ccttgagtcc caggacctgt gatcagtcct acccgagca gaatcaggag	3780
tttgaaaacc caagtgccaa caatctcatt ttaacctatg taagcatatc caatatttat	3840
atatagaatt cataacagat gtctgggctt ccattccaat agcctatatt ttacactgtt	3900
tatttacatg gttacaccaa acaagactca attcaaggta acccaatcct ttgctactat	3960
acaaaaataa gcaacatttt cagtccatgc cttatatata ttcaccaagc attacactag	4020
gcctccaact gctcatcgga gcaagctgca gcctggacac aagctagaga ttaatcagtc	4080
aggaatgatc ctgctccag tgccagcatg atggaagaga cagagaaaca gaagacatca	4140
gggctccaga gtcaaggagc ctgcagggtta gttgggcagg atatacacac atacacacac	4200
acacgcacac acaaaaccac ccaagaagaa aagggtgggat gaatgcatgg acaggtaatg	4260
cctggagcct ggggatggat aagctgactg cagggtggccc aggcaggctt cctggaggaa	4320
gaagacctgg ctgtangtgg ggtangcang ctttctaaat ggggaaaatc tggtgtggg	4380
tggagtggc angtttccga aaagaagaaa agctgactat gggtagacct ggctgttgg	4440
ggaacangca ggcttcttgg aagaagaaaa tctggctgtg ggtggatcan gcaagcttct	4500
tggaagaagt aaacctgact atgggtggac caggcaggct tcctagagga agaagaccgg	4560
ctgtgggtga accaggcagg cttcctagac agaggaagat ctggctgcgg ttagagtggg	4620
caggcttcta agaagaggaa gggctgactg tgggtagacc tggtgtggg tagactgggc	4680
aggcttctg gaggaggaag agctggagca ttgaaaaaca aacatgactt ggtgaatgtt	4740
gagcatgccc aggcctgatc cccagaggca attacgcact caagttactt aattctactc	4800
acaatgcctc acaaaacaact tctctgacac ctaacacagc tctgggcacc ttctagcttc	4860
agctcctcaa agcagttatt cagctacta cctgcacac ctctcacac cccaacccca	4920
gggacaggag ttctgccaga tgccaaagct cctgatgcca aagcctgggt ctgcttccgg	4980
gtctctcttg gtctaactgt ccaccccgca tcggcatgat gtgcaaaaac aaggctttgc	5040

aatctgccct gatgcctggc ggagcgagtc cctcccgatt cgtctccttc agaaacacct	5100
gggctgccct ggtcctgtta tcccccaac acattctaca gtcagctccg caagttccac	5160
aaagatcaac gctggcgttt ttatggcatt ttatttacag tttttacaat ataaaaaagg	5220
aaggatgcca cagctcagcc agcaggacag acagagatct atgatgcttc tgctgcacca	5280
ttgtttgtgg tcaagaaagt ctgttttcaa tgatttatta aattgtggtg ggagatggat	5340
ggtggcagtg gttaccagca acatgaatgt tcttaatgcc actgaacttc acacttacia	5400
atggttacga cgataagtgt tatatgtatt ttaccacaat taaaaacagg taaatgcagg	5460
ccgggcacgg tggctcacga ctgtaatctc agcactttgg gaggccaagg caggcagatc	5520
acctgaggtc agggggttca gaccagtctc gccaacacgg tgaaactctg tctctattaa	5580
aaatacaaaa attagccaga tgtgggtggg catgcctgta atcccagctt ctcaggaggc	5640
tgaggcagga aaatagcttg aaaccgggag gcagagggtg ccatgagctg agattgtacc	5700
attgcactcc agcctgggtg acaaaagcaa aactctgtct caaaaaaata aaataaaata	5760
aaaataggta aatgcaaaca tatggtatag taatattatg ggctattatg agctacaaaa	5820
aagaatgact tgggactaca gttacagccc tcattcagga atttgtttta aatgtgggtt	5880
ggtcgctaag gcatgtacac aacattttga cgttcaaata ttcttagatt tggacagtga	5940
gcacccctct aagctggctc ttctgtccca gaggtcccca ccagtccctc agaacttctt	6000
tgctttctta cacaataaga tgcccatgc tcggcttgta cctttccttg cccagccct	6060
agaaccagct tcttcgtgga caagctctga ctcccttggg tggagaatgg tattcagaaa	6120
cccagacctg ggctctgggtg tgctcactgc tacttgggggt cattgcttct aggcctctct	6180
gctgatggag gtaggatata cacgtacagt ctccctctt cccagattcc gtacttgagc	6240
tcgcctactt gctaacattt atttatatcc cccaaattaa acctcacagc acttctgcaa	6300
tcactcactg acttgcagag tgtgaaaaaa ctgagtcacc atcacacgtt ccaaactgag	6360
gtcaactgag gccacaacgc cccatcttct tgctccggct gtcgagatgt aagcaagtgt	6420
ccttctctcg gtctagctag tgccatgctt tccacatcac tgtgcttttt gtgggcaatt	6480
ttgctgtata aaatgtcccc tgcacatatg ctgctgtgta gtgctcctag gtgcatgagg	6540
ctgcccacg ccttacagag agaatatgca tgagaggctt tattcaggta tgagttatag	6600
cgtagttggc catgaattca atgttaatga atcaacaata tacagtaaata aagggtgcttt	6660
ttagagacag ggtctcactc tgtcacccag gctttagagt ccagtgggtg gaccttggct	6720
cactgccgcc tcaacctcct gggctcaagt gatcctcca cctcagcctc ccaaactgtt	6780

gggattacag gcgtgagcta ctgcactcag cctaaataag gtgtcttaga aacacacata	6840
agacaagggt atgggctgag tgcggtggct catgcctgta atcccaacac tttgggaggc	6900
caagggtggga gggtcacttg aggccagaag tttgagacta gcctgggcaa catggcaaga	6960
cctcatctgt atatTTTTTT aaatcagaca ggtgtggtgg tgcatgccta tagtcccagc	7020
tactggagag gctgaggcag gaaaatggcc tgagcccagg aggtcaaggc tgcagtgacc	7080
catgattgta cactgcatt ccagcctggg gtgacacagc aagacgctgt cttaaaaaaa	7140
aaaaaaaaaa aagccaggtc aggtatcgaa cagttggcaa aaacgttgtg acctgaggct	7200
cacaggaacc tagcccgatg tttccctag gagcaatggt tcagtattca ataattcagg	7260
gttcccagtg actttatgga gcataacttt caagaataac aagaaccaac tgtacgtgtg	7320
tatgtatact cacactttta ttttatttta ttttattttt tgagacagag tctcactctg	7380
tcacccaggc tggagtaaaa tggcgtgac tcgactcact gcaacctccg cctcccagg	7440
tcaagtgatt ctcagcctcc caagtagctg ggattacagg tgtgccccca caaccggcta	7500
atttctgtat ttttagtaga gacggagttt cgccacattg gccacgctgg tctcaaactc	7560
ctaacctcaa gtgatccacc cacctcagcc tcccaaagtg ctggaattac aggcattgagc	7620
tgccgtgcct agcctacata cacttttata cacacatgca tctatgacta tttctctatt	7680
tctgtgcatg tgtgcgtggc agtacctaca gtttcagcta tgtgtctggg tactgtctcg	7740
tccaagtttg taagcacctt ctccaaagtg caaagcctgg cttgtgttac tatccatag	7800
tttacttatt tgctcaatca atttacttat tagctccata accagcttcc catctgctcc	7860
agtagcctct gctgtcagtc acctctgcac cctacccac cttgcttccg gatgctggat	7920
gccaatcacc cccgacacct ctacatagca ccaccctcga catgctgctt ctttatttct	7980
tatttatTTTg tttgagatgg agtcttactc tgttgcccag gctggagtgc agtggcacga	8040
tccaggctca ctgcaacgtc cgctcctgg gttcaagtga ttctcctgcc tcagcttctc	8100
aaatagctgg gattacaggt gccaccacc acgcccagct aatttttgta ttttagtag	8160
agatgggggt tcaccatgtt ggccaggctg gtctcgaaact cctgacctca agtgatccac	8220
cttggcctct caaagtgtg ggattacagg tgtgagccac cgcgcctggg ctgcttcttt	8280
aatgccagg caccaacatt tgtgcaatgg ggtgggagga aagaacaggg aggagagcac	8340
actgccggcc cctgcactga atccactgat caatctgggg gcaactgcca tctccatctc	8400
ctgtcttctt atccgtgaac atctactgca gtctctcca atgtccttct gtaaagttgt	8460
attatgtttt gcatacaggc cttgcatatt agttctcaga tataatccat atactttata	8520



taaaattcaa accacattta aaaaaataaa actagcatga ctataacgga gtctgcaaca	8580
ttctcacaga ctttatgata aaacatgaaa cttcaaagat acttaggggtg gggcagggac	8640
aatgtttaag gctgcctgga agcctcccca tccctgagcc agaaagtcct atctcccctt	8700
caaggggaaa tgcttgaaaa agcactgac aggctaaaat gacagggac agggagtaat	8760
caaagtacaa gtgagctggg ctctccatt ctgagcacag caaagttcag tctctccaag	8820
tccaagaatc atacacctgt ttgccaagaa tgaagttcag gtgtctacaa gtggctgaaa	8880
atattcattg ctgggccatt aacaacattc ttggcaaaac cataccttag cttctcgtgg	8940
aaattttctta aggtagaaga aacaggaaac acccaggctc gcttttatgt agacagttcc	9000
atgaagccag ggaccttccc cacatccacg ttccaattac ctgcacgcag ctcacagtgt	9060
attcaacatc tacgcgtctc tctactggg gtggcggtgg cactcaaac cctcatgcag	9120
ctacgatgac cgcaattttg gcaacataat ttcattgttt tcttgggct tttaccaag	9180
tcagtgcac aattctgcag ttgtctaaag attcaaaatg agggacttga catttacaac	9240
aataataaaa tcttgggttt cctttaacca agcacatgtt ctgcctttta gagaaagctc	9300
tgcaaactca agctggagtg ggatacttgc tgacatcttc aagcacccca ggaatagctc	9360
tactcccca tttccacctt ggctgaacca tctatatccc accaattccc ccaacatccc	9420
tccatccgtc catccatcca cccaaggacc tgctaagcca ggaggtctct cccatctacc	9480
ccacagcctg gcctcagccc acaagggtc tctctacatg aatcccaccg caccagagta	9540
gaccaagtct ccgtagact ccacctgac cacctccatg cctccagcca tttccacccc	9600
taaaaaccct ccttgggtct tacaccagc tgatgaatac ttggctgaat gtgacctggc	9660
ctcctggacc caggtgaagc ccacgtctc cgtaagcccg ccagctcacc ctgcctctgc	9720
accttcactg gagagagccc gcacttcacc tctcagggc aggcattggct gatgccccc	9780
agtggaatct ggtgcaaagc agggcccggg gcagagcagg gctgcctgca gagcaaggcc	9840
ctggtgctgg ggccgagcac ctccaatgct ggccgtggaa ccatccctcc cattccaggt	9900
gctgtctcca tcaagaatga gcgagctgct gacatttgca tgacaataat gaataaatac	9960
catattttgc ttcaaatcca gaatagatgt ggccaggggt ggcatatgac tgttgggaaa	10020
ggacagtttg cctcttccca aaccaacttg gattataaaa agcttttctt aacgaccaca	10080
agagcggagg agctcagggg cagacaaaag gaaggctggc tgagaaggc gggagagtgg	10140
ggccttcagg ggcgggtggg gagagagaaa gcctggagct gcaccccaa ggtctgtgta	10200
catcaggtgc tacagaataa caccacctc tccagcttgg ccccacctg cctctccca	10260

gcccagtcac ccagacagca cccactccc cacacacacc tcacatctgc ccgctcaca	10320
ctcaccagct tcggctctca atgcaacctg gaacctgccc ttggcctctc agctcagcca	10380
ccccattcc tgttggtccc tggcccccca tcgaattctc tctaattcta atgcacacac	10440
ttgcacactc aaacacacac acacacacac acacacacag cccagaggaa aaccataatt	10500
gactgaggtc caggcaagtt tcccagcag ggaccacatt tcaaaggta ggaagcagg	10560
cgaacaggaa acatacaggg ggcacgtttg ggggtggagc aggaaataag aaatcacttg	10620
caaaagataa aaagaaaatg aggtagctgg ttccagacac ctgggagcac acagaacagg	10680
acaggcgcct ccgggtcttc cctcaacagg gagatgggccc aggcaggctc ctgctgctcc	10740
accgcagagc tgggggctat ggccctgaca ccaaggccct ggggcaggcg gggaggcagc	10800
tgttctcctg cctgtgctcc cgggcagggc ctggcccccac aagggaactg gccgaaggct	10860
ctgcttggtt actccggaaa gtccctgggag acaagcaaag gacttgctag gtcactccaa	10920
acggcccaga tgtgacaact gtgaagaagc cacaccaaaag caagggtgaca gaacaatgtt	10980
ggtgacgtca ggttatcagc ttacgtctaa ctccacttac ccgactcac ccgtaacctg	11040
ccgtctcttc ccaaccagta aaggatgcct aggtagaggg gcacaaggcc tggagcataa	11100
ttaccatttt aaaggctctg agaagtcctg cggtagaggaa gcctagttca ctttctctcc	11160
cctaggattt cccaactgcg cctgatcaca gaacattttt tcatttccac tcaggaaaca	11220
tattttgaaa aacctgggc tagaggcaga agtgaaatgg aaaacacaaa agtaaaactg	11280
aacaggaggc actgggcaga gaacggtcag aggcgcctg aatcctggac cggtaggat	11340
ccccagcttg gcctgctccc ctccctgggc ccagaccgcc tccccccatt tcttgataa	11400
gaaggcta atgcctcagg gtgaagggtc tgcctgggct acacccccag gctcgcccca	11460
caccaatgc gctctgcga gagccagtga ctttcttgat ttggctactg tggaattgtt	11520
tgcaactaac cccccagat acagatacaa atgacaggat gatcagatgt aaaggaccca	11580
caggctctctg tgatacggct tcatgcagcc agcatggcta gtgccgtgca gaatgagaat	11640
gaccccaggc aagtccttgc ctcccagacc cagaacccca tggagccccc cagggctggg	11700
tcacaagcac tgtctgggtc gggcagagat tccagcaaga ggagggaaca tccatgcacc	11760
ggagccagtt accagaagca aatcgctctt tccaaaaccc aggtatttaa tggagtccac	11820
tgttgagtgg agctggggtc tagctatgga atactgcaca gcagagatct tctgagaga	11880
aagcagtttt cctgaaagc catgtgtcct ccaactaactg tgttttaatt gggcgaacgt	11940
ctgtatctca ttgcagtggc cgcgcatgtg ctgacaaggg gctggggggc gggtagggag	12000

cagaagctca	ggggcctggg	aggggaaggaa	acaggccacc	agggctcccc	agaaggcatg	12060
tatctctctc	acaaacacac	gcatgcacac	acacgtgcac	acatactctg	caagccctga	12120
gttagcaact	gtggaatgtg	accagctcag	tgatcccagg	acaagctgct	agggaatatg	12180
acatttgatt	gatgtctgca	aatgtgcgtt	ttcactaatt	agaaggttta	gggcagagca	12240
gagaaaaata	tgtatttcag	agtcccagtt	tgacctgcca	gaaaccagcc	cattactaac	12300
attcttattt	tcaacaaaat	atagcattct	gattacatac	catcttggtt	ccacgcctcc	12360
tgctttgcca	agcccccgga	agcggcccaa	ggccatggca	aatagtgaga	gaaacagttc	12420
caggggtggag	actgactcag	gggtgtcagt	cagtggggcg	ctgatggccg	gtgggaggcc	12480
agcagtcac	accctctcct	tgggacagtt	gagtagctct	ccccagggt	catgtggcca	12540
ctcaggttca	tatgggaggc	gagaggagt	gcagagtcca	ggagagtggc	tccgaagtca	12600
ctgttccctc	caggcctcag	tgtcttcac	cattaaatgg	gtaggctgag	gtctgggatg	12660
acaaggagg	cttgcaacta	ctgaaaccca	tgggaggctg	ttcgccgatt	tcttttattg	12720
atggaagaaa	acactcgtat	aattcaagta	ccaattaa	ggcaggcact	ggaaccaccg	12780
tctgccaatt	cctagttttg	cctataccaa	atttgagcaa	gttaattgac	ctctcccagc	12840
ctcagtttct	tcgtctgtaa	aatgagggt	gggatggccc	ccagcccaca	gggcagctgg	12900
aaggattaaa	gaaatcaa	atctcttaga	gccacctgg	cacactgtga	tacacaacaa	12960
atgttagcta	tttttgtcta	tgaagtctag	attttatatc	ttgggtgttc	taaagcagga	13020
tacatttatt	taaaaacaag	gattttcatt	aaacacgtac	cccacagaca	gcaaccccat	13080
ggagactgct	cttaattcag	gccagtatcg	aaacgactct	aactacaagc	tttatacagg	13140
tctcttggct	gtccttcaaa	tccaactaag	gtggtacttc	tgaagcactg	tgacatgtg	13200
tgtgtgcatg	cacacgtgtg	ggaagggcgg	gtcacggat	ccctcaggta	ccccaccac	13260
gcagtctcaa	gtcacaagc	gacagagcag	ccgaggaagg	tctgtgcccc	actggaccct	13320
cgtgaagcca	ccaactctac	ctctgcgccg	tgtcctgcag	actgggctac	cctttgggtg	13380
gggaccagca	tttgatgcaa	gaaaggcaga	cagaaaagga	aaagggcaag	ttcgactcca	13440
gataacacag	acagtaccaa	gccccagggt	ccataaatgc	cacgcagatg	gaagcattta	13500
ctgcgaggcc	acacagcaaa	cgcacggatc	cagggacgga	ggtgcagact	gcggtgcccc	13560
tgagccatga	ccttgcaa	taccaccatg	ggaaaggagg	ctgccaaa	ccccgacagt	13620
cggctgggct	ggcacagact	cgtgggttcc	atcgaggtgg	gaggaggtgg	gacgtcccag	13680
ccctccccc	atgccactg	cagaggaag	cggccgtttc	ccctgtgtgg	ttacaaaggt	13740

ctcattgttc ttcctcacag ggaggaaact ggaggaccga gctcagaacg catttttagaa	13800
ctggcagaaa agaacatctg gggaaggaaa cacatttcag aaacaaacat acctttgtac	13860
cagcttttat tttctttaag tgttgaaaaa ataataataa taaagacatg ccaaatttat	13920
catcgcteta caaaatccct ttattgagca aaacgtggca gctctacttt caaatgatta	13980
ctgttcttgg aaaattgcag caacgtggat gccaaagccc gaaggccgcc atcagcagcc	14040
aaacaaaaga tgccacctcg ggctccgcga cactgtacca tgccagggaa ctggacagat	14100
ttggggaatg ccacggtttg cctttaaccc cttgcctcct ggtctcctga tgcattctcag	14160
aggctaacat tctttgagga actggcattt cttagtgtga aatatgcatg tgggtttggg	14220
agctgcctgc aaagtccagt gttgacgac agctttgatt tcttggaat caagtttacg	14280
tgtcgagtct ggaagttaag aagaatttg agaagctgag cactatggtg ttgcaggccc	14340
tgggtgaact cttccaccaa gcattcattg tggactgaca gcgtgcgagg ggctctgcag	14400
gcaggtgcac aggacgaaac acattccgtc cgggggaaac ctgcaggaaa gctccctctt	14460
cttcctaagg tgccgggcct agcttcatgg gtccctaccc tccacgcctg tcacactttc	14520
tgagtctcat gtgggagctg cttctggttc ctgacttcac tcagtcctca taggaggtgg	14580
aactactgtc accccatttt acagatgggg agactgggca caaggggacc aagaaaccaa	14640
tgcaaagtca cacttgtggg atcagtgaca ggggagatca attcccaggt tctttctgca	14700
agagttaa at tgttttcatg ctgcctaagg gggggcaact gaaagaccac tgcatacttt	14760
tgccaaaagg gtcaagcaca ggagccgcag ccagtgggtc agatccgcag aggcgctggg	14820
gtgacctcc ccatacctgg agggatgctt gtccctcctt ggccttact gggccccctc	14880
atgaccgtgg cctcccagga cctcagcaca atcccggctc tgtgctccag gacaagccct	14940
ccgtcccaa gactgtgagg aaatggaacg aagaggggct cgctgcagcc cagcaccac	15000
actgccccct ctcaggggca agaaccgtcc tggaggactt ggctttggag ggggagcctg	15060
ggaggccagt aagtcaacaa gcctctactg ctcattgggtg ggatcccacc gcaggcccc	15120
acctgctggg gcgggcaggg acgggcggca cagcttgcc agggcagata acccccacct	15180
tggccagggc gaaggcagga cacgtgggt ccagcctggc cccaccatcc ctgcacaaca	15240
ctgggcaaag tccacgtttt cctcaactgg gtgttgacat ctgcaggaca ggggcatgga	15300
ggtacagagc gctgaagcca cacagcaacc taggagcgag actccatgcc tccccgggga	15360
cccctccca ccatgaggac catgaaggct tcccatgtgc cgcaaggact ctggtgtgga	15420
gacacacgtc tctacacag ccaggcctaa cgctcttgta actgggtggg cccacctggg	15480

ctcacagctg gagggccagg agctcaaggc ttcgcagggt ctgctctcat cccagaggcg	15540
atggggagcc acagcaggct gcaggagaga ggggtggccc cctccacttc agaggcccca	15600
tctggcccac agactggaga gcacatctct cagcaaccac ggagcgccaa ctgcgcacag	15660
ggcctggtcg tcagagcggg gcaaaggcac tgaccgtcac ggccaggggc agggaagacg	15720
gggtgggcagg gaccttgggc agagggggaa gaacctggtg cccaggctgg ccctgccttc	15780
agcagtgaag ctgagtgggg aggcgctgat gcagggggcc agaaagggt gctggtcagc	15840
cgggaggagc cccccacaga ggaagcagcc agcccagacg cagatggcag ggtccctca	15900
acaatgtcct ctgaaaagga gaggcgggga ctgctctggt gacacctaca aatagatagt	15960
cagccctcag cccctgcc aacttctgac aaagcagagg ccccagggg aggcgcaccc	16020
gaaggtagct gcacctgtcc cccagactcc tagagcccac ctgaccccat cccaccaggg	16080
ctccagctac aaaataaatg ccgaggccag ctaggcaagg acgcacactc ggtaccgact	16140
gaataggctc cacgttgtca tgagcgcaac ccacaggcca ccaggccaca ctatgcagag	16200
ctgagatggt ttcggccaag cagcctctca gctgagctga acaagtccag agtccccggg	16260
gggtcgtcac tatggagtaa caattgcgat gcgatggtaa ccctaacagc taaccgtcac	16320
tgagccaggc cctgagctag gtacttttca acgctgcctc tctgcagcct caggacgagc	16380
ctgtgggagc ataaagatca ttccctatca cggatgggga aactgagctc tgaagcagtt	16440
aacgtgcttg tcccagaccg cagagctagg agcaggacac aacagcaggt caggcaggaa	16500
cgggtgaggg gggcctgcat gggcttctct ggaggtgctg catacacgca acccccagga	16560
ccccgacctt gcacctgcag ctcgctactg cccctcagt gactccagca aacctcgggg	16620
taggggaagg aggtgggaa tacctcgggt gtccgaaaca gcagcttctg cttggaggcc	16680
actgctgcat aatggttgct gccagcaca cccaagcca cctgtgccac ctgtggtgac	16740
cttccagcat gccttggtga ccaagctggc cttaggtgct gtgggcagcc aagaatagaa	16800
cagggccac cctcctctt cactaaca caaagcaaga ggccggcact tcgactgagt	16860
gcacccctct agctcaaggg cctcacggat cacaggggtc agggcaagat cccaattctg	16920
cattcccgtc tgcccttcat cctgctctgc caacaacagc cagtgaggct ggggacatcc	16980
ctgaacctgt ttctcacctg aaacacatca taccattgga cccagccct ccgggagagg	17040
ccctaatecc tgactgtggt gagatcagat cactgggttaa gtaccagaa gggccttgggt	17100
caggggctcc aggggtgggg ggtgatgggc gtggtggtat cccgctctgg gctatagtcc	17160
acctgatgg aggaggtctg tggtcagaac cgggctgtgc agggcacagg agcccagagg	17220

gacccccaga gctcacctgg tgggtctctga gcaggggtcc ctcaaccctc agagaaaagc	17280
acagcaagga ggccgcccag agcccagcgc ctagcaccca gtggcgtgcc agacctgcct	17340
ggatcctgga gatctctcat caccctccaa gtcagtcatg cccaaccag ggacccacag	17400
cccacggggc cgtgaagggtg tgctgagtc aagaaggcct tcgacactgg gaagccaagt	17460
ggcacctcct ggtgtggagc aggcggaatc ccaccagcct ctgctctgcc agtgggcaca	17520
gctggacgat gagcagaagg ggctgttgct taataaacgt catttcctta agaggataaa	17580
acctttcaaa acagatggaa attttttttt aattaaaact ggtggccaaa gagatggaaa	17640
gcaccccttg tgccctccctc ccacgtgac ccacctctg cacacctcaa gctgttcgct	17700
gccaggtgt ctctgaggc actgggggcg ggtgagaatc cgtgagccct cggccagccg	17760
tggtctctctg gagctctgcc ccaggccatc agggcacacg ccgggcaccc tggggggccac	17820
acagggcaga gccagctgg gtcagcacac agggccacac tgggcacaca agtctctgag	17880
cctccctgt ggacgcagct ctactatcc caccctacta ggtcccgagg atctgtccca	17940
cagggtgata tgctgtcaca gaccactacc agagccatgg cctgctgttc cggccgcagc	18000
caggtagtca cttgctccac agggacaggc aacgccgcac ttgggggctg ctctgcggca	18060
ggactagagc tccagcagct cagccctcct gagaaggaga actccatgct ctaagaggca	18120
gacgcagcgg acggcaccaa agccaccaca agcccacggg gccttgcag gcaggtcagg	18180
agtccttgac cactcgtctt ttgtaaccag agctgcagtg gactctacga ggcaaggact	18240
gtgggcggca gtggccacag caaatgaatg agtgtcccaa gggagcaggc ggctgcgggg	18300
aggcacagcc gggacccagg agtcctccgg cactgcagca aactccctgg gcccctgag	18360
cagcgaccag gtggcaagt catgaactcc cgggggcata acctgggagg gtgacactct	18420
cttcgtgttc aaattcttga gaacgcatta aaaatatcac tcagtcacct actctatagt	18480
tttaactcaa aagtaccaa gtagccaggc gcggtggctc acgcctataa tcccagtact	18540
ttgggaagct gaggcaagag gatcacttaa gcccaggagt tccaaatgaa cctgggcaac	18600
atggagggac ccatttcta caaaaaaagt gttttaaaaa attacctggg cctggtggtg	18660
tgtgcctgta gtcccagcta ctcaggaggc tgaggcgagg gaaccacatg aaccagggg	18720
aggtagaggc tgcagtaggc tgtgatggca ccactgcact ccagcctggg taacagagtc	18780
agaactctatc tcaaaataaa tttaaaaagc accaagccag gcttggtggc tcacacctgt	18840
aatcccagca ctcaggagg ctgaggcaag tggatcacct gactcagaag ttcgagacca	18900
gccagccaa catggtgaaa ctccatctcc actaaaaata caaaaattac ccaggcgtgg	18960

tggcgggtgc ctgtaatccc agctactcag gaagctgagg caggagaact gcttgaaccc	19020
aggaggcaga ggttgcagtg agccaagact gtgctactgc actcaagcct gggagacaga	19080
acgagactcc atctcaaaaa ataaataaat caatcaaaac caccaagact ttttaatata	19140
aacattttatt attccataat tccttttttg catgattaaa aatggtttata taaagtttcc	19200
tgaaaaatggg aagaatgcc aagtgaaggct gcaaatgccc aagccccac cgtggcatct	19260
cacggagtct gggccctagg aggctggtgg gtaccacgtg gacccgagac ttcacagtca	19320
agtccttttg gggtagactg ggtttccac accccagaaa tatgggctct tactgcagga	19380
ccatgggggt cctcacactt ggcccagaag ctgtcacata gccagacagg tgttctacaa	19440
cctaggctag agggagctca tgctccagca gaattcgagc cagaggaggt aaaagatggg	19500
taagatctgc tccctggaca gatgaggcct tggcctcaga acagttactg atcatctacc	19560
agacatcaca ctagaggcag aggggcgcag acgaagacag cccctgtcct caaggccctc	19620
ccaggttggg tggaccatgg aaggttccag acagatctgg caagagaagt gccacacca	19680
ggggcagaag atgggcaggt ctgctcaggg cggcacggcc tgccaggcca aaaagttcca	19740
acttcagatg ctggagaatg ggcacgactg tctgagaaag ggaaggatgt gatgaaaact	19800
acttgagaa aaattaatct ggccagagca taagataaat gggcaaaggg gaggttccag	19860
aaagcaagga gaccaagtaa aagctgatgt cattggctct gaatctaggc tttcactgaa	19920
tatgcaccgc agggcctgta ggtaaagcct cagagcccag ggagtctgag tggaggagag	19980
ggcaggggac agagctgggg cctgtgtcta cagtgtcag gaggaatagg catggacgtc	20040
agctcggagg ctccagctga agtgaggagg cggccagggc agcacggcca cggccggtc	20100
cagactcctt ttgggaagca agttcgctct gggggaaagt ttggagaaat ggcctttacc	20160
cgcagaagca agccccagaa catatcttgc tccaaaacta tctcgtagag tgaggacgtt	20220
aagcttcagg tcccctagag gagacagtct gtccttctc ggggcagAAC ccaagggtggc	20280
cagagcctgg aaggcaccca gcaccaggc tgggtgtgtc cagcccaggc cacacgtca	20340
gatagctatt aatgccccgt tgagcaattt cctgagagct ttgccaggca ggtaccgcct	20400
ccccatctga actaatacag gggtagatcc caaggaagaa atgaaagggtg cccacatttt	20460
gctctgggat taactagga ggggagtgat aattaactca gtaattatat ttgccatcgg	20520
gctaatagcta aaattagtgt gcattagaat ttctttcctg agcagacacc ggagtgaatt	20580
gggcagcagg agtggctcgg gcaagtcggc acaaagggca cctccagagc cttccacaaa	20640
tgtagcaaaa acccacaat gtcaaggccg gctccactgc acccagcaga tgaattcact	20700

tccacagcct	gagaccgcca	gctcatcgga	ggccatttaa	aatccagccc	tctgacacct	20760
gctggatata	accattttacc	gtccccagat	caagagatca	aaggggtggaa	cctgatagga	20820
cggtcttgaa	gttcaccaca	aaagcataaa	cgtgcaagca	gagccaatac	gtcttttgaa	20880
aaggacaatg	aggtgggaat	ttacataact	gatcttaaaa	tatgtttctga	tgcttcagag	20940
atggagacag	cagcattccg	gtacacaaa	acactcacag	gcagtggagc	acagtgaagg	21000
gtctggaatc	aggacccagg	tgtctgtgga	cactacacat	aaaagagcag	catttacaat	21060
gaatggatag	gatggaccat	cccaccaagg	tgttggaaca	ctccctattc	actggccaga	21120
cccctacctc	ataccatata	caaaaaaaaa	aaaaaaaaaa	aaaccagac	agaataatgt	21180
ctgaatgtaa	aacataaaac	agtaacagtc	ctggaagaaa	ataatggagg	atatatttat	21240
aatctggaga	tggagtaaca	agggatagga	aaaaagccat	agggaaaaag	tagagttatg	21300
attatatgaa	gcttcttaat	atcttttatga	taatgtacca	ccagaaacaa	ggatgaagga	21360
ctagctacag	accagcagtg	aaacctgaaa	caaacagaac	aaagaattaa	agtccatacc	21420
aaataaagac	ctcccacaaa	tctataagaa	aaagataaac	aggctggcac	cgtggcttat	21480
gtctgtaatc	ccagcacttt	gggaggcgga	gatgggtagg	tcacttgagg	tcaggagttc	21540
gagaccagcc	tggccaacat	ggtgaaaccc	tgtctctacc	aaaaatacaa	aaattagcca	21600
ggcgtggtgg	cgcatgcctg	tagtcccagc	tacttgggag	gctgagccag	gagaacagct	21660
ggaaccgagg	aggcagaggt	tgcagtgaac	caagatggca	atcgcgccac	tgactccag	21720
cctggaggac	acagcgagac	tctgtctcaa	aaaaaaaaaa	aaaagaagaa	gaagaaaaaa	21780
gaaaagaaaa	agacaacaga	aaaatggggc	aaggataagt	gtaggcaatt	tgagaaaaag	21840
taaataccaa	taaaccagaa	atgaggggtg	tgcaaatcaa	aaggtgttat	aatttttaac	21900
caaactggac	caaagaaaac	acaaaaaac	aaaatcttgt	aattgccagc	atcagagagg	21960
atataggaaa	gtgtgtgttc	tcgtagatgc	ttgcaggtat	gaactgttac	agccttttag	22020
gagttatgta	tgtatgtatg	cttgtatgta	tgtatttgag	acagggtctc	gctctgttgc	22080
ccaggctaga	tctgttgacg	tgctgtgatc	atggcttact	gcagccttga	cctcctgagc	22140
tcaatagatt	ttcccacctc	agcctttcaa	gtagctgaga	ctacaggagt	gtgcaatcat	22200
actcagctaa	tttttttaaat	ttttttaga	catggggggg	ctcccaattt	tgcccaggct	22260
ggtctcgaac	tcttggaact	aagtgatcct	cctgcctcaa	cctcccaaag	tgctgggatt	22320
acctggatga	gccactgtgc	ccggcctcaa	tatcttttaa	aacagaaatg	gacacactct	22380
ttgactagga	atgtatccta	taaaaacact	tatacacatg	cagagacaca	cgagcaagca	22440



tgctttgtaa tagcaatgaa ggctggaaaa actcctcaat caggtaaagt ctgtcaagt	22500
cacctgtgta ctatgaaatg gcacttggct tttacaaga gcaaagacag aaaagcaaaa	22560
gtacaaagta ggggtgtgatg gcacatgcct gcagtcccag ctactcagga ggctgaggca	22620
ggaagatcct ttgagcccag gagttggagg ccaggagctg ggcaatagt agaaaaata	22680
aaattaaata ataataataa taaaataggc tgggcacagc ggctcatgcc tgtaatcca	22740
acactttggg aggctgaggt gggaggatcg cttgatcca ggagttcaag gccagcctgg	22800
gcagcaaagc aagacacca tctcaacgac aaattttaaa aaatcagcca ggcaggctgg	22860
gcatgggtggc tcacgcctgt aatcccagca ctttgggagg ccgaggcagg cagatcactt	22920
gaggtcagga gttcagagacc agcctggcca acgtggcaaa accctgtctc tactaaaaat	22980
acaaaaatta gctgggcatg gtggcagatg cctgtagtcc cagctactga ggcacaagaa	23040
tcgcttgaac caggggtggca gaagttacag tgagccgaga tcgtgccacc gcactccatc	23100
ctgggcgtga gtgagactcc tgtctcaaaa aaaaaaaaaa aaaaaaaca aggagccagg	23160
cacggtgggg tgagggaggg cacagaagca gcgcctcttc tgggggcacc cccaatctct	23220
agcgatccag aggcctcagg atcctgaagg gagaaaaaac gtgaagctcc gtgctagaag	23280
agaccataga gattggaatc agctggttct attttcaaaa aaaaggaaac tgaggccctc	23340
agaaggtgag tgcctctcaa tgccccacag ggaggcaggg agagggtctc gagccctgca	23400
gggcccctgga ttcttgcaat ggggtggagt ggagcctgtg ccgccccac caggcacctt	23460
ctcaggagag gagccgttgt catatccttg aaggggtcct tgagccctc aaaaggctaa	23520
aaaccacttt cctccttgag tgaaccttca cctcagttta accacaagaa aaactacatt	23580
aaggcccagc gcagtggctc atgtctgtaa tcccagcact ttgggaggct gaggtgggtg	23640
gatcgcttga gcccaggagt tcaagaccag cctgggcaac atagtgaaac cctgtctcta	23700
caaaaaacaa caaaatcagc tgggcgtggt ggtgcacacc tgagggtcca actacttgcg	23760
ggctgagggtg agaggattgc ttcagcccag gaggtagagg ctgcagtaag cggtgactga	23820
atcactgcac tccagcctca gcaacagagc aagactcaaa aaaaaaaaaa aaagcaggcc	23880
gggtgtggtg gctcacgcct gtaatcccag caccttggga ggccgagcgg gaggatcagg	23940
agatggagac catcctggct aacacggtga aaccccgctc ctactaaaaa tgcaaaaaat	24000
tagccgggcg tgggtggcgg tgctgtagt tccagctact caggaggctg aggcaggaga	24060
aaggcgtgac cctgggagggt ggagcttgca gtgagctgag atcacaccgc tgactccag	24120
cctgggagac agagcaagac tccatctcaa aaaaaaaaaa attaaatctc aaaaaaatt	24180

acattaaggc aaactaaaag atgttttaaaa tatatatatt aaattaaata cactccaata	24240
gagcaaatac gaaaataccc agaaaacaca atccccgcac cccaggaca acctcccagg	24300
gggtccacag caagagaccc caagcacgag agacagagaa cagtgtccct gtggcggaac	24360
ctctggccca tcaggctcta ttagaaaata aggctcttgc cactgagaga aagaggcaca	24420
gtcgcccagc agccacgggc tctggcacac cactgagcag gccagcaaag tgtcaactgc	24480
cccctacaag gtgacaaact aggacaaact ggaaaccaga ggctggacct ggagcacagg	24540
gaccaccaca tggggctggg gaatgggcag ggacctcaga gcgccacca catgcctaag	24600
agcagcgcgt atgcgcatgc ctctgcatgg cttagggaca caggagctc cccccaccc	24660
caaccagga aggcagcccc cactaccag gtagggaacg gataggacca gcacccggtt	24720
ctgctcgtaa ctgaggctc caggccccct cgggggcaac cagcacagag ctgagacccc	24780
aaatatcttc acccacctc tggccccat ctggacaagg gtgctgggga ctggctctca	24840
gtcacacct cggggctact ttcaaaggac agctggatgc cccagggcag gagcttttgg	24900
ccccagctc cctacacca gacaccagct cttgggaccc caccagcatg ggcaagggtg	24960
acaccatcgt ccgattttg cagatgagga aactgaggct gagggtggc acacggctct	25020
ccagagctga agagaatgca gagagcagcc ggagccagcc ggtgggtccc tgaggccggc	25080
tcgtagcaag ccacagctgc ctccgccat cacacttga cctcactggc cccaggacag	25140
ccctccagg cggcctggca cagagccac accctgctgc ttctgaaca aataagtga	25200
caaggccacc aagccgagga cctggatgta gcccggctc ccgccagggc ctcccaaca	25260
gactcccat ttggagagcg cattaagtgt ttccaaagcc tcacaaacca cagatgtccg	25320
gctgtctcac ggcttctgta acctgaactt ggccctcact ctgccctccc agcactctc	25380
tcagggccca ggccctcct ctgagatgcc agcactgact cccaacttg tccccatcac	25440
ctggctcgtt cctgaacctc ggcaggagag tctcaggcca gatcctcca ccagccacct	25500
ccaccaggat gcaggaggca tgagacctgc tcgtgccggc tgggagatgc aaccaacaa	25560
gatcaatcca atcagcggat gaactgaaa atataatgtg gtccctccac acaatggaat	25620
attattcagc cacaaaaagg gctgaaatag gccggcgctg atggctcaca cctgtaatcc	25680
cagcactttg ggaggccgag gccggcagct cacttgaggt caggagttca agaccagcct	25740
ggccaacatg gtgaaatccc gtctctacta aaaatacaaa aattagctgg gcgtgggtggc	25800
gggcacctgt aatgcaagct acttgggagc ctgaggcagg agaatactt aaaccagga	25860
ggcagaagtt gcagtgagcc aagatcgac caccgcactc caacctgggc aacagagcaa	25920

gactccat	ttt caaaaaaaaa	ataaaaggct	gaaacaccca	tacgtggtac	tacttggatg	25980
actcctgaaa	acgttacagt	aaccaaggaa	gtcagccacg	aagacgcatt	gtaagattcc	26040
cttcatgcaa	aatgcccaga	acaggcagaa	ccacagaggc	agaaagtcga	ctggtgttca	26100
ccaggggatc	cggggagagg	gaacgggaag	tcaccgtgta	atgggtatgg	gttttatttt	26160
gggggtgatg	aaatctctta	taacttgata	gaagagaggg	ttgtaaacac	tgtgaatgta	26220
ccaaatgcct	gccttctata	ctttaatatt	ttatattata	taagtttcac	ctcaatttaa	26280
aaaaaaaaaca	actcgacacc	tttcacctag	gaaagatctg	gcttttagctt	gcatttcctg	26340
taactcctgc	ctaaagcctt	ccagaagcct	ccgctgcctt	gtggatcaca	accagactcc	26400
acaccatgat	ctggcctcta	agggcctctc	gcaggacacc	ccgaggggtga	aggagcaccc	26460
gtggggccac	ctctgcatag	ctgcaaagct	tctttccctg	tcttcccctc	tacatgggaa	26520
gctctgcccc	gaggggagg	gccttatctg	ccattctatc	gcactcaacc	ctagcacttc	26580
actcggtagc	agacaccaaa	gcaaaacagc	aacagcatta	taccgggcca	ggtgcacgtt	26640
aactcactga	attcatggta	ggaaggattc	tattcccatt	ttacaggtga	gaaaactgag	26700
gcacacaaaag	gtagcatcag	cttcctaagc	ctcccagcac	aggaagcggc	caggctggaa	26760
tcagaccctg	ggcgagggg	ctctgtccac	agtgctaact	aactactcct	gccccgagg	26820
gctgcagcgg	tgagtgagt	agtttgtcag	tggactggat	gtccaaggtc	atacaggaaa	26880
aatccagact	attgtaataa	cagcctctag	accggctggg	gccagaaaga	tcgaggacgc	26940
tgacacacaa	ctgcgctcac	tgcagctctg	ccagggatgg	ggctaaaggt	ctcacacagg	27000
gcagttaggg	ctcccatag	cctgggagag	gaacgggggtg	agataacaga	aactaggtat	27060
ggtgcccga	gtcaaacagc	cactgagcat	gtaaaccag	gtgggtctga	ccccaaacc	27120
ctccaccccc	atcagccctg	caaccgctc	ctgcaaggga	gaaagcaact	cagaggcctc	27180
acctgcctac	atccccacc	cgtgtgtgtg	agttctacta	aatgcctgag	cagtgcacac	27240
gcacggctga	aattaaacgg	gttcacaaaa	cgacaggaag	cacgaagtga	atctcccag	27300
gaaagtgtctg	aacaaatgct	ggatcggggt	caccggcgaa	tttcttgga	ctgaagaggg	27360
gagctaaaca	cacggggccc	tgctttggag	gggactctct	cagggtgctc	cacacagcac	27420
ttggttaacc	ccactcagcc	cttctgggct	ctcccagagg	gcccggcctt	ggccttgggc	27480
atctacagga	ggaacctcca	gggggagagg	gggtgcctgg	acaggccggc	cctggaacaa	27540
gcacttgggc	cccaggagga	gaggactagg	gcttgggagc	tggggaagtt	ctcagcactg	27600
ggaccactag	aacaaagcca	tttccgtgcg	ttcacagcct	ccaattgcaa	caggaagcaa	27660

tcaggaaaaa taattagcgg ccacttact ggcttcgctg aggtccgagg catgtatttc	27720
acacagtaaa accagggata taacatcaaa accgttctgc agaaagattc ctccctttcc	27780
ttccatttta ggcttgatc accacattca ctggggctcc caggccttgc tgcctaattg	27840
taaaataatc aactctattt ttgcctcaca cacaactgaa ctctacagct ataattcttt	27900
ctctcaggg gctcgaacca catggacgac aggcatttga ctccagcaac atcaccccaa	27960
aacgtgcaca aaacccaaaa ctgcaatgag gtgaaaggca acgcggtcgg cctagaaacc	28020
ccccctttaa aacaaacagt tccccaaaa ccccttttgc ctcttgacc caggcatttc	28080
cggaaaaagg agcggcgctg gcctgtactc ccagatact gtcgctgttt tgtcttcacc	28140
ttgttttgct agctccagac aaggccccac aatgtaaaca cgctcctgaa agaggcagat	28200
ttggggtgaa actgtccata gaatctctag gcttgggtca gaggcaggag gacgtgaaac	28260
aaactccaag ctctcctgt tccccgctgt cccccacacc tccaagcaga ggctgcagcc	28320
tgggggatct gactacaggg ccaccccgct gcaccattca cactggaaat attcaggag	28380
acagctgttt gccttaagga ggcccagaca aaggggccc aggtcctccc cgctaaactg	28440
ccacaaacag aacaggagcc gcggcggtga caggcacttg cggccgtgcc acttggccag	28500
ccatactcca gaaaaacaaa acacgcacat ccgaagagaa tgatttaggt agcaagaggc	28560
ttgcttgaaa aaccacatgg caatctccaa attaaaagaa catgtgtagc gtttcacgac	28620
tgcttaagtt tctgagtc tctgacctc aactccacc cctgggaaac accaaaagtt	28680
ggatgagaaa gtcccccg cctacctctc ccacgggag tgtacaactg aggcacaagc	28740
ctgcctcccc cactgccccg cgatctggga ccacgtctcc tccgcgtagc cgacccggg	28800
atggacacta tctggggacc cggcggccac acggggcatt cgggtcgccc gggcacctgg	28860
caggtgtcag tccgcttgga aaccacagc cacgcggctc acaggagcag cgccaccggc	28920
taggcgccc cgcgcccggg ctcagaactt tctcgtgcc acttcagccc gtcctcggag	28980
cacgcggggc ggccgcgcgg ccgctggaaa caggcttgcg aaccggctcc ccgggccagg	29040
ccgcctccg cgccccaagt cccgctcgg tgcccgccc gggccacacg ggcccagcgc	29100
gggctcggct cggtccccg cttcccgcg gtcgggcag gtgaggaccc gccgcgccc	29160
cacctggcgg agcgggcgcc ctctcgcca gcccgggacg cagcgtcccc ggggagggcc	29220
cgggtgggga gacaaagggc ccgcgcgtgg cggggacgcc ggggacggca ggggatccc	29280
gggcgcgcgc cccaactcgc tccaactcg ccaagtcgct tccgagacgg cggcggcgcc	29340
cgcgcacttg gccgcggggc cgcccgggcc attgtccgag caaccgcgg cccgtcttac	29400

acgccgggcg cggaaggta tcgaatcagg

29430

&lt;210&gt; 8

&lt;211&gt; 33769

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; unsure

&lt;222&gt; (33739), (33749), (33758)

&lt;223&gt; Identity of nucleotide sequences at the above locations are unknown.

&lt;400&gt; 8

cttccccctta cactggctct tcgacccgcc tcggatgaaa actgaatggg tttagcctta	60
gaggctctcg gtctctaagg gaggtgggtc aggatgccgg ggacagggtc ctcttcctgg	120
ggcaacgtgg gggaacgagc cacctacccc tccactgaat tgccctgggg tgtgggtacc	180
gacggctcat tcggtgtcca gggctctgaga tgtgttgaca ggaagaatga aaggggatgg	240
gaggggatggg gcgaaagaag ccacctgcag cccaggaac tatctggcca gcacaccgtc	300
acccagcggc ctgagccacc cctgccagag ccaggaggag accctgccaa tgggtcacca	360
gtgtgcagga actcagaagg tcatcacagt taatacctc catgccccaa tgtgggaaaa	420
caggtttttt cacaacaaac aagataattt ttgttatttt ggcaaaagga ggcagggcag	480
ccccggacac ctccatccca cctcatcacc cagccgcagg gccccggcca tccctgcaga	540
cagagtggat gtcacaacct ccctgcaccg aaccaagtgc agtcccagg ccacaggcca	600
cccaggaaag gtccagtggc ccccgagggc tcccaccgca ggctcccccac cacagccggc	660
accaaccag gatagctgtg ttctcctggc ttcttttcac acgggtagca gaaagctgag	720
atccggggaa agctgagatc cagggaaagc tgagaatcgg cctctgctgc ccggacgccc	780
acccccagct ctgctcccag ctccagggcc tccttctcag gtgcccttac aggaggcaga	840
gggcttgagc cacctcctgg gcctggggca cgcaggatga acggggtcac ggtgcaggcc	900
actgtccact gcgcagatcc caaggccata aacagcctgg ccacagtggc ttcccagctg	960

gcaggcggcc agattatattt tgttgtttag caattgatta agtttctccg ctgccccag	1020
gggtaagtgg tggggcaaatt gccgcaaccg cagcatttga cccgggatcc tgtgccaaagt	1080
gaccataggg tcacaaagca caagggaagt ggctgggccc gatgctggct ctgctggaac	1140
ctgaggccgg ccaactgtcac ctgcacggtg cctgggacct tccagcaagc acagagaagc	1200
tatggccctc caggagcagc tggcaggcac cttggcctgc agtcaggggc tctgtctgct	1260
cagctctaaa acaggaaagt cgctgctctg cctgggggtca gggcagccag agagtgacca	1320
agtcagtgcc ggccctcagga agggacctgc aggcgggtcc ctccctctcc catccctcgg	1380
tgccagccag cccctcctgt ggccccccac tgccctgcctc tgcccccatg cccaccaca	1440
acctcaggcc catggctgca tggccactcc ccaggcaggc agtggggatg ggatttcacc	1500
atgttgGCCa ggctgggtctc gaactcctga cctcagggtga ggagttccta aagtgtctggg	1560
attacaggcg tgagccaccg cggcagccct cctgtgggta ctaaactctc acacccctt	1620
gctggggacc ctggtgaggg aacacagcct cacaagtga gtgtgggttt gttgagcaaa	1680
tgacgcctgg gcagccctct catctttgcc taaaactgaa gaatttaggg gcgtggatgt	1740
ataaaacagt tgggtgactta aatgaaaaag aaggccacac tcccccttt aggcaggcgg	1800
cctaattctt taaaagccag cacagggtgc ctttctgaac ccaggcacac agtaggtgtt	1860
caatggacag cagcggttac ttgtactgct catgacacc tgtctgtggc ctctgcagct	1920
ggctccagcc tgacgcatgg ctgcgcccc cgcgaaggcc accccggtat acatggaaac	1980
tctgtggaga aggccttggg ggccggccag gacgccaggc ccagatccca tctgcgccct	2040
tcctccatag acctcagcga gctctcggca ccatgtgcct caggccatt taagaagtag	2100
ggccggccag gcatggtggc tcatgcctgt aatcccagca ctttgggagg cccaagggtg	2160
gtggatcacg agatggtcag gagatcgaga ccacctggc taacacggtg aaaccccatc	2220
tctactaaaa atacaaaaaa taagccgagt gtggtggcgg gtgcctatag tccaagctac	2280
tcgggaggct gaggcaggat aatcgcttga gctcagcagg cagaggttgc agttagcgga	2340
gatcgcgcca ttgcactcca gcctagggtga cagagagaga ctctgtctca attaaaaaaa	2400
aaaaaaataa aaaaaagaag caggggccagc cacggacgac ccctcacaca gctcccagga	2460
cgcgtgcctg ggtatagggc tcaggacct gaccgctgca gtggccccca agaaacgtta	2520
cttttgtcac ccaccccgcc tcagtggcag tagccaaaat aacggattag aatggaacca	2580
tgtgacaatg ccaactgcccc aactgacaga agatggctat cagcagttca cgcggcccca	2640
cctatcacia gtgcagggca ctctacaact tatgcatcct tcccagaca ccgtcctttc	2700

gaccctccca	ggtcagcaag	gcacacaggg	cctacatttc	acagccacac	agcagagggc	2760
tgaggctgga	actcggatgc	tctgatttcc	gttcaatcac	atccccagag	gtggcacaga	2820
gacggggggc	ttctcttgac	aaagtcaaga	aagtcaactgc	cagctccact	gaagacaaaa	2880
gaacctcagc	tctcaaacc	tcttgaaggt	gttaccgaac	tctcccagcc	tgtttcctgg	2940
gtcccgatgt	tgggtccgtg	ggacacagga	agaggaagaa	gctccctaga	gcagagcctg	3000
gtgcacctgc	cacactctca	gagggctgcg	cacgggcgga	ggagccgtgt	gcaggagtgg	3060
ggctctggatg	gaggggctg	gtggccgggg	gcagggggca	ggggaagggt	gctccaggtg	3120
gtgggcacag	cacgagcagg	ggcagggagg	tccacactca	gatgtgcaca	gggagaaaca	3180
aatcgtgcat	ttccattgga	ataggcggta	aaaggtagaa	aaacagagt	ggggccagga	3240
agggagtcgg	agccttctag	tgtctctctg	caggtgagcg	gcagcccag	gtgtcagctc	3300
agcagacttg	gggtccaggg	gccgtgtctt	ctatcactga	cccagggca	cacggaactg	3360
gggagggaga	gcagaggcac	agggcacggt	cagtgaacg	aaacaaggag	tcatcaccaa	3420
atgcggaaaag	ggcaaggagt	gcccgcagcc	gcacaagggt	tctgtctggg	caacgtgggc	3480
gtcccaccag	gccccgcacc	ctgcaagcgc	aaagctcgcc	actgaagata	aagggaagct	3540
gttgagagctg	cggagctggt	ctgggggtccg	catggagctg	ggcttatgct	gcagtcacaa	3600
gggggacatg	gaagaggctg	caggggacaa	aaccagtgc	cacagtctaa	ctctgagcct	3660
gtggaaaggc	gcccacagca	ttcacccatc	ccagagatgc	cattccccct	gtgccccgc	3720
tccacggtga	cagcgttctc	caggaatatg	atgcgcccct	ctcctcttgc	atcagccctg	3780
acagtgahta	ttcaggccaa	aaagcagaag	agcacagctg	cgtggttcca	tttccatgta	3840
gttctggaac	aggcaacgct	aatccaaggt	gatagaagtc	aggagagtgg	tggagggggc	3900
gggggttgag	gatggcaaag	gggcaccggg	aactttccca	gtggtagaaa	tgttctctgt	3960
ctggaccgtg	tggtagttat	gcagacatat	gcagctgtca	aagttaatcc	aaatgtacac	4020
gttaaaatgt	gtgcgtttta	ttgcctgcaa	gttatacctc	aattaaaaaa	ataaagttag	4080
cactcaggct	tcttccacaa	cttcctgaac	cgtgtgagct	gattttcttg	ctattaaaaa	4140
ttcacggtcc	atggctgaga	acagcagctg	ccttctgttt	gcaaagtcaa	cgccaatcac	4200
tgcccggccg	cggcagactc	ggccccacag	gacctctttt	cttttttccc	tttgacctac	4260
ttccctgata	agtgacaaga	cagccagact	ctgggaacaa	acgcccgtta	ttcgccccg	4320
agctgagcgg	gccctgcttc	ctgagctaata	ccgcccggac	agacggaggg	acgtgagggg	4380
ctttgccgtc	ggctccagct	gtcagtctgc	ccgtcagact	cgacagtggc	cccctctgtt	4440

cctcccgtg cccccactcc atccccgact tctttttgtt tctgtccct gacagacgaa	4500
catctgttaa aactctgtct ggggtgagctg tggccagcgg ccacaaaatc cccaagccgc	4560
acccagcct catctgggcg ctgccgggag cactgcctgg ccacctctg gacatagctc	4620
tgagagccac cggccagggc acgtgtggcc cgagtggcat ggtgcacgcc gctaagccca	4680
ctgccccaaag gcccccaagc aggagggatg tgcaggagac aaaagtcaaa agaacagggg	4740
cacgttccac agaggatggg gctggagggg tggcagtga gaaacagcagc ttccgaggat	4800
ggcgggtggca actcccaaat aaggcctcac tctgtctgtt tttagctcat tccacataat	4860
tggaaaaaca tggcagaaac cgaagccagc tgctgccttg gtccctggggc tgtgtggagg	4920
gggtgggggag gccggaggcc caggctctgc actcgactgc tggggatgag agtgactctg	4980
agctgcagag agcagcatcg cagccgccat ggtcccattg agccccggcc acgctgggcg	5040
gcagaggctc gtgggatata cctgccctgt ctcatggggg tcacttcagg aggggcgggg	5100
gagccaggac acagcccagg gctagcggtc accctgcagc tcagggggcca cgtaaatagt	5160
gccaccttga aggcacacag cagtgcgggg cccccccgc caccaacgca tcctacctc	5220
taggaggccg cctgtgtgcc cctgggaacg ctgctccctg tccttgggg tcttggtgtg	5280
accacctct cagcccttc cttggggaag gcacctgact ccctacacc agctggcttt	5340
catttgctca aaatcaggaa aaagcagaat tcaagacatc acagaaatgt cttcgctgt	5400
aactccatga aagataaacg gtcagacacc caggaggag tcccaggac ccttgagtct	5460
cacctgaggc tctggcttca aacctcgaga tgtttccagc catgctagcg ccgccccca	5520
caacctgccc cacacagtcc tccttgggga actcacagat ttggcccca cctgccccgt	5580
ttcttctggt ggagtgggtg cgttgggttg ggggtgggct ggggactctg gatgtgtctt	5640
aagagtctga gtgattctga cacagccagg cctgcccc ctcctgacct tcgccccaca	5700
ggaaagggag ccacacgcct gaagcgccca gcacacccc ctcgctctc ccaggtcac	5760
ccgctggcgg tgtgagccgt gctccccact gcccttcac ccaccccagc tcctctggc	5820
agcaccacgc cttggaagct acttctgatt acaaccgccg aaggaagact cgctccctcg	5880
gcactgacce agacagcctg caccatcacg ctgctcagca caaccacac agccttctc	5940
caaaccccat ggagcgggga gtataatcac cccctttcta ccaacggaca aactgaagca	6000
cagagagggt aagtcacttt cctaagctcc caacacgatg aaaaaaata gaaggtcagc	6060
cgcgaagtgg aactaggtgc tccaagtccc cggctctgct gacactgcac ctctcgccg	6120
ccacgggtccc gggtcgcct gacactgcac ctctcgccg ccacgggtccc gggtcgcct	6180



gacactgcac ctctctgccc ccacgggtccc ggggtccgcct gacactgcac ctctctgccc 6240  
 ccacgggtccc ggggtccgcct gacactgcac ctctctgccc ccacgggtccc ggggtccgcct 6300  
 gacactgcac ctctctgccc ccacgggtccc ggggtccgcct gacactgcac ctctctgccc 6360  
 ccacgggtccc ggggtctgcct gacactgcac ctctcaaca ccaccacggt cccgggtctg 6420  
 cctgacactg cactctctca ccaccaccac agtcccgggt ctgcctgaca ctgcatttcc 6480  
 tcatcaccac agtcccgggt ctgcctgaca ctgcatttcc tcatcaccac ggtcccgggt 6540  
 ctgcctgaca ctgcactcc tcaccgccac ggtcccgggt ctgcctgaca ctgcacttcc 6600  
 tcaacaccac tccttgccc gctcccaact acaaaccaag ccatgtcttc catcctgaat 6660  
 cctcttgccc taaacatcac tcacaatgcc tccctcggga acaggcaca gtcccaccag 6720  
 cacagcctcc ttcgttacct gcgtttccgc tagcccaggg ccagctccag agccctcacc 6780  
 acagagcctc tctccttcac ccccgacac tggacctcac caaccatag cctggaggag 6840  
 atcctgtgt gacccaggg cctcctctgc ccgactctga atttactgc ccaactgac 6900  
 acctcggaag gctctctggg cactggcagc cctccatggg caccgctcct tctggccagc 6960  
 tctgacatcc cggctgggtga ggtgccctgc acgaggcctc tgcccactgg gacctcacag 7020  
 ccgtgctgtc agctgcaaca agcgacagaa tttcacgtt tttcacgtt gcccctgggt 7080  
 gagcagctcc aggtagtttt cagtcgaggc gaggcgtccc gtcagcagcc aggcggcaca 7140  
 gctaattcat gcccgcggg cgcacggccg caataccaat gggcacctgc agcctggaaa 7200  
 gccacagagg aaccgagaa agcgactgtg ctgaggtgac aggactgtgg tcttttaaca 7260  
 aaacattttc ctttaacgtg atattttacg gcaaggaatg aaacctggag ggcaggacat 7320  
 ttggatacta aagccccagg ctgccgctg gtctgctttg tgaagtctga agcccgcgcc 7380  
 ccattctggc cccgctcaca ggtccggctc tgactcacca gtttcaatgc taggcctgac 7440  
 ctgtcctcca accagaacat gacttctta aggacaaagc cgtttctcgc ccatcccat 7500  
 ctccctctgg attaagaaat atgggaagat cttctagaac cactcaaatt ttgcagagag 7560  
 ccatcctggg gacaaacct tgaaatgctt ctaagaagag tttaggtttc ttctcaactc 7620  
 taaaacctct agaaaactct atttcacac cagctgcccc tggaacactt cagcttcaaa 7680  
 agggcccagg gcaggagac ggaggagcca gcatccacac cgagcaccag cctgttaatt 7740  
 aacgggaagc ggggtggggc catctccagg cagctctgag gtcagactgg ggaacctgac 7800  
 ttacaaaaaa aagtgaactg aaacgctcac gtctcatgc aaaaccagac tcccagttgc 7860  
 atctttctgt ctattgagg agctttttcc tcccttgac agaaccct acacacggca 7920

tctggaacca aagcagaaag attcaggctc agagtaaaac agtccccaca ctggctgcat	7980
gtggacgttc ccggcccaga gtctcgccca agcagggcct ataaatgaca caaaatgttt	8040
ttctcctgcg tgccagtcac gctccaactg agttatgtgt aaaagtgcct ctcacggctg	8100
agggcaaaaa cagttcccac aagactagag aaaggtgacc cctgacggct gagtctctag	8160
ggagcgtgga gctgctgtgt cagccctgcg gccctgacgg ctctggaatg gaaaagctat	8220
ccaactggaa gggcagggct cgctgctagt ccagcggctc aaccacacag gtgtctgtgg	8280
tgtcagctcc atgccacaga gcccagggct ggggccagag ccaccaggcc ccctgccagc	8340
ctgcaggggc ctctcctctt gggtagccta accacccctt gtgagcgcag gcagcctcct	8400
ctaatacca cagggcctgt cccccctct ccccgcttg caggaaaatg agccctgagg	8460
actccccagg gctgctctgg gcctggacat ggagactggg aattacattt gcagaaggag	8520
cgcaatgcc ttgaagggtc cagccacgag cagccagctc ccagggtca gaaggcccag	8580
ctgttagaac cctgggagcc agcaaagagc caggggctcc acctagtct atagccctg	8640
cctcttctgg ttgggaaaga aatcaacgcc cctttactgg ctccactga cagccactc	8700
ccccaggtat gggaggattc tgggacgatg caggcaaacc tggaccctga gtgaacctgc	8760
cccagctctc acgggcctgg caccagccac agcacctaag gcgccgtca tggtgacaac	8820
atgaaggaga taagggtatg gacagtggac atggcagctg gacactgggc acccactgga	8880
tgccaggcac ccagcacggc tccgtcacc ctggatgagc agtggccctt tgcaagccag	8940
ggtagcctgg gcaagttatt tgggggtctc caagcttgct cagctgtgag acttactga	9000
gcatgagtc tgggatttta tcagggccca caccgcttc tggaaactctg atacgtgagg	9060
gagccacaca gggaccctta acaaaagctc ccagggaac atgttctctt gcctcagtct	9120
cccaaatagc tgggattaca ggcgcacgac taccgcccg ctaatttttg tatttttagt	9180
agagacaggg tttcaccatg ttggccaggc tggctctgaa ccctgacct caaatgatcc	9240
ttccactgtt agggcaaggc acctgacagg cagactgca cgatctgctt gttgggggt	9300
gtgtccattc cccactcctt cgacaaatgt ccacaccag ccttgctttg acacccaag	9360
aacagagatg gtgacacctg ctctctacat gccattgct ctccaaggc agacatcccc	9420
agcagatgca acacagtgt taggcagaca tcaccaatcg atggtggcaa cagacaccag	9480
gccctgctcc ctctaactcc agtggccagg cccaagcca gctctcacct gccactccc	9540
aaccacagc agcaagactc agaaatggca aaaacacaaa gagaacagaa acgccccata	9600
gcgggaggat gactaaaaga catgtcttga taagatattg ttcaggcata ggccaggcac	9660

agtgggtcat gcctgtgatc ctagaacttt aggaggctga ggtaggtgga tcacctgagg 9720  
 ttaggagttc aagaccagcc tagccaacat ggtgaaaccc catctctact aaacatacaa 9780  
 aaattagcca gacatagtag cgggcgcctg taatcccagc tgcttgggag gctgaggcag 9840  
 gagaattgct tgaacctggg aggtggaagc tgctgtgagc cactgtactc caacctggac 9900  
 aacagagcaa gactctgtct caaaaaaaaa aaaaaaaaa gatataccttc actaaaactc 9960  
 atgtctttga tacatattta cctcctgcaa tcgcaaagc ttctgcagtg cataaagtga 10020  
 aataaatagc aggaagcctt acggttcgat caccacacac gacacacagt cacatacagg 10080  
 aaaaacgcag ggagggtcgg ggaacaaaaa aacagaagat aaaatgtgga gacagacaca 10140  
 ccaagagagt aagagaccac ctccagacct cccttcagct tctcaaacac acgagccggg 10200  
 cccgttacag aatttgccgg gaccgctgca aaatggaagt gcagacagcc ccttactcaa 10260  
 aaggtaggaa ttctcaggtc acaacagagc tcacctcata tgactacaca ggtcacacag 10320  
 cccgtgaagt cgggtcccaac accagcatgc tctgcctca aagccgctgc acgtgctgtt 10380  
 ccttctcgcc ttccctctt ttagtccttc agatctcagg cctcctgaga gagacctctg 10440  
 acctgccggc tcaggcggcc acacccccag tacaggagtc tccggctcag ccctgctgt 10500  
 gttccgtacc cgatccaggt ctgtcctatg tccatctgtg tgccggcttg ctctctgaca 10560  
 tggccccac cacacgtgtg cctcggggca ggggaacagg cccgtctcat taactgcttt 10620  
 ctctctcagat attttctgga atatttgtgg atattgggca acatatatgc tccacctttt 10680  
 tcagactagc caggacgagc tgcatTTTTT tttttttttt ttgagacag ggtctcactc 10740  
 tgttgcccag gctggagtat agcggcatga tcttggtcga gtgcaacctc cgcctcctag 10800  
 gctcaagcaa ttctcctgcc tcagtctccc aagtagctgg gattacaggc ccgtgccact 10860  
 actgcccagc taatttttat attttttagta gagatggagt ttcaccatgt tggccaggct 10920  
 ggtcttgaac tctgacctc aaatgatcca cctgccttg actcccaaat tgttgggatt 10980  
 acaggcgtga gccactgcgc ccggcccag ctgcctgttt tacacctttg ccatattccg 11040  
 gtgattctct ctccccctcg tccccggcc ctgactgtgg tggccactcc ctgccgtcat 11100  
 gagcccgtat gtctcactc ttccctttc cgcaggact tcaaccaaca ctgcagagcg 11160  
 cagggtccag ctccagcact gagttcagcc tcttctcacc aacagacagg caggaaagaa 11220  
 aacaaactct gagaaggcca aggttcccg gcagccagca agccaagcat ccttctccgc 11280  
 tgaggcttgt gcagccgagg cccccctcc tccagggagc aggcagcgtc ctggggcagt 11340  
 ctgcgagggg gaccagggcc cttgctccac caggggccca ggtatggggg cagcagcaaa 11400

ctcatggctc tgggagccag accccacctg ctagaaccta ctatgccacc tgctgtgggc	11460
aacccccaggc tgggtgacttg ccttggcctc ctctgtaaac aaagggctca tccaacctgg	11520
tcaaaccact cctccccctc aaggggtctat aatcctccct taacctgctt ggtccaaacc	11580
cctgggtgctg ccaggtcact caggaggcag ctcatctgga ctcttccct ggggtccagtt	11640
tctctctcaa cattgccttt gagggccagg tgaacggta acagcgaagg gccccagagg	11700
tgatggagga gcggtgtcc aagacactca ccttttctaa tgactgact cctcgtgga	11760
ctcacttgctg ccgtctcccc caccaccca gcccagagc ccagagtgcg agcgccagag	11820
gcccgggatt ctgtctgcac cgcgggtcc ccagtgcctc ggagcaatgc cagcacccgg	11880
caagtgttcg acaaatgcct gctgaatgag caaatggatg gatgaacgaa tgaatgagca	11940
agcagatgaa tgaatgggtt gctgtccaga gccgtgagga ctaggccgcc caagtcccca	12000
tttctcaaat tctccttctc ccgacttggg aaacaagatg cttgggtcggg gaggtctctc	12060
aaccatcccc tgcagcagcc ggcacagcgg acagaccctt tgatgtaaca gccatgtctt	12120
cattaaagat gccctgctct cagaaagaga aagacaaata caaacctgga aaatcctcac	12180
caaacgcagg acccctgccg gggagcagag aaaagaccca cagccacgg gcgccacgac	12240
cacacacaca cccagccgc tgcacacaaa cacagaccct agccagcaag aacaggggga	12300
ccaggaaact gttcctaaag tcaggacccc catgtgctca gacagcagt agagcaagga	12360
cacttctcca tccaccgat gccaggagag tctttttagg gggccccaca ccgagactct	12420
gcccttagga ctgttctga gtgtggaagc cagcccactt ggaagcccc tgccctcccg	12480
agtgggacac cggcacagga agcaggccct gtccccacc actttctgca agctgggccc	12540
catcacgcta cagaaacggg gaggactggt cccagggatg gcgctttcct gacacctctc	12600
gttaccctct cgcttgccag gcccagggt cagccccaga ggccagactg gctatcccag	12660
gcccgggagc atccccgaag gcgagctgca tctgaacgt gtgtgatttc ccgaagggcc	12720
cgccccgaac cgacacctgg aaagaaagat cctcagccgg tgccccagag gagaagagcc	12780
atgcctcact gcaacacagt cccaggaagc accaagtgcc tgaggaccaa ggcggagagt	12840
aaaaaagtgg aaaatatctg gggcaaaaat aaaacaaaac aaaacaggat tgacctctg	12900
ggctcaagca atcctcccaa ctacgttcc cgagtagctg ggaccacaga cttgaatcac	12960
cacaccgcc aagtggatca tttcgaacgg gtttgccgag gttccttctg gggcaccccc	13020
ggcgccgca accattccc gccaggcccc gcccgcctg cccgccccgt cccgtccac	13080
cgctcacct gccttacag tctgcccgt gtctgcagc tgcacaccg tggggcaggc	13140

gcatgtgtag aaaggctcgc ttggggacag caggcacagg tgggagcagc cgccattgtc	13200
ctcctcacag cgagtgtgga ctgagaaaac caggacagac tgagagaagg ttccagaaga	13260
ggaccgtcac ttgtttctga atgagtcaca tcttgctctg tccccctga cagcctccag	13320
tgtgtccctc tgcccaaaca tcggcctcaa gtggcatcag ggacctcccc gcgggcacca	13380
ttccacctgc ctcatcgtg gccccgtcca catggggccc tcagcctggc cagacggcct	13440
gcaatttccc caaaaccagc cgtgaccttc ctggccaccc tcacaccag atgtgacctg	13500
cccatggagt gacatcctcc ccatctgctt cctcccacca agctcctatg actagaacac	13560
cctccccagc tcctcggagc ccccaaagga caccctctg caaaggctgc cccccacgt	13620
ccaatggcgc gggtcaggac ctgcctgtgt ggtagtgacg ggaaccccag agacaatggg	13680
ctcctgggca aaaggcttgt cttgtctttg tgctatgtgt ggaccagca gcttccatag	13740
gaacactgtc cttcttgctg ggatggccaa gcttgctact ctcccaagcc ctctatgac	13800
caacagcaat tgaacggaac tcgataaatg cttccagcac ctcatcaaa ccaggggaaa	13860
gctgggtgta gcagcccaa aatacggata taactggaac acaaaactca tcaaatgaa	13920
cctctccctc cctcatgctg cccaagtgt agatgggttt tgtgaccagc actttctcac	13980
caggaaacag ctccagagag cccaccctc ctgtgtcctg ctctgggaac agctggcacc	14040
cctaggcccc acatttcaat tcaaagtcca aaccttccat aatggcctgg ccagaaatct	14100
ccatccctgg tcctgtggg agtgggccac tgtcccaga gccgcagccc cactgtcaca	14160
gaagctggtg catttccca tcagggacct ctgtcacaac ccagcgtggc cccaggtg	14220
agaactgctg attctgggca gattattcat tgataaatac gcgacttgca gggccaagca	14280
tggtggctca tacctgtgac ccagcactt tgggaagtca aggtgtgagg atcactggag	14340
cccacgagtt tgagacaagc ctgggcaacg tggcaaaatc tctcatctct attaaaaata	14400
catacacaca cacacacaca cacacacaca cacatatata tgtatatata aataaccata	14460
tatatatata cacacatacg tgtatgtgta tataaatata tatacacaca cacacagaca	14520
acttcttctg ggcttgaaa acgaggcaac cttccttgga aatccccctg cactgtctga	14580
gctgaaata gccccatga gctctgcaga ggggtcctct gcaggcccgt gtccccagc	14640
cagccacaca cctccctcca ttgcagcagg tacccttta gagagggggc cccccagagc	14700
atgggtctct gcaggagggt gtcacctgcc cccccaccc acccacgccc gcgcaccccc	14760
acgccccgc atcctccac tccctgccc cgcgccccg ctccccccag cccctcacc	14820
ctctccccg tgcccaacc ggcactcaca aaaaggctgc cgctcctggc tcagcacctg	14880

gatgtccatg ggtgagtata gggcactcag gatctccttc ctcttcccc cagtgcgctt	14940
gttgcaggca tggatggagc gggctctgcc gtctgtccag tacagagtgt ccccgagag	15000
cgtcagggcg aaggggtgcy tcaggetgcc ctccaccacc ttctgcctgc agtcagggaa	15060
gcggggtgga ggagccatca ggaggggtccc ccgacagtca ttgctgctga cccaattaat	15120
ttcttttttt ttttttgaga tggagtctcg gtctgtcgcc caggctggag tgcagtgatg	15180
taatctcagc tcaactgcaac ctccgcctcc cgggttcaag caattatcct gcctcagcct	15240
cccagtagc tgggatcact gatgccacc actacgcca gatgattttt gtatttttag	15300
tagagacagg gtttcatcat gttggcaagg ctggtctcga actcctgacc tcaggtgatc	15360
caccacctc agcctctcaa agcgtgga ttacaggcgt gcgccaccat gccaggcttc	15420
ccatttgctt tcaaccagac aagtgaggcc aggtcaagag cccaggagc tggcgccctc	15480
gtacatttct cccggcgtgc acagggcacc tcccaaacac agcctgtgat ggtgacacac	15540
gggtccccc aggtcaagtg gcaaagtctc cccaggga gaaaggagga agccatgcct	15600
ggcaaaaagc acacctctcc tgcccaacgc ttaacctct gtatacaaat caggccatgt	15660
gcactcgctc cttcttacia tgctcataat ttatacttcc agagtaaag aaacttgga	15720
tcaaccgag aaacagctat tcttttctag atgcttacag tgcccagca atgaggactc	15780
gggtgtaatg agattatgga cactggaaac aggatcataa tgtgacgtgg tcggtaatgt	15840
gcagttttat ttgcttaatg accctcgccc cgtgacaggc tccctgaggg tgggcctggg	15900
ggcagaggtc cccgccacgt cccagccct cagcacagt gccaggagag ggtgacactc	15960
atgaagtggc acaggaaga tgggagctgt gggctctgca gatccaccac ctcttctgtt	16020
catttttgtt gatgctgttt tttaagaaaa ttattgaagt aaaattcaca ggacatacgt	16080
ttactttttt tttttttttt ggagatgggg tctactctg tcaccaggt tggagtgcag	16140
tggtgtgatc tcagctcact gcaacctctg cctcccaggt tcaagcgatt ctcccacctc	16200
cgctccaga gtagctggga ccacaggcgt gcaccaccac accagctaa tttttggggg	16260
gtatcttttt ggtagagaca gggtttcgcc atgttgcca aggtggtct tgaagccctg	16320
agctcaggcg atccaccgc cttggcctct caaagtgtg ggattacagg cataagccac	16380
tgcaccagc cttaaatttac cactttaag tgaatagtgt tacctagtgc attcgcaagg	16440
cgggtgcagc tccacttctg tctagttcca aagcacttcc attgccccac aggcaaaccc	16500
cacaccggc agcagtcag cccagtcct cgccccagc cccggcaaac acttttgatg	16560
gacttaacta cacacattct caacatctca tataaacgga atcacaatat acagcctctg	16620

atgtctgtct	tctttgactt	ggcaccatgt	tttcgaggtt	catccaggct	gtagcatgtc	16680
agtgttcat	cccgtttttag	gggtgaacca	tattccagtg	tgcagacaga	aaccaatctg	16740
tgcatecatt	cacccactgg	gggacctttg	tgtcatttcc	accctcggct	gttgtgcaca	16800
gtgctgtac	ggacattact	gtccattcac	attttgtgtg	aagacctgtt	ttcgattctt	16860
aagagtatac	agctaggagc	ggaattgctg	ggtcatacgt	aaatcaatgt	ttacgtctca	16920
aggaatcaac	aaactgtttt	ccacaatgtt	gtcttttttg	tttgttttct	gagacagggc	16980
cttgcctctg	cacccaggct	ggagtgcggc	gggtgatca	tggctcactg	cagcctcaat	17040
ctoctaagct	caatccatcc	tcctgcctca	gcctcctgag	tagctgggaa	cacaggatatg	17100
taccaccatg	gccagctaat	tttctaattt	tatttttttt	tgtttttgtt	tttttgagac	17160
agagtctcgc	tctgtcgcgc	aggctggagt	gcagtgggtc	catctcagct	cactgcaagc	17220
tctgcctccc	gggttcacac	cattctcctg	cctcagcctc	ccgagtggct	gggactatag	17280
tcaccggcca	ccacgcctgg	ctaatttttt	tgtattttta	gtagagatgg	ggtttcaccg	17340
tgttaccag	gatggctctg	atctcctaac	ttcatgatcc	acctgccttg	gcctcccaaa	17400
gttctgggat	tacaggcgtg	agccaccacg	cccgacctta	cttttaattt	tttaattttta	17460
ttattttatt	ttattttttt	tttttttgag	acagagtctc	gctctgtagc	ccaggctgga	17520
gtgcagtggc	gggatctcag	ctcactgcaa	gctccacctc	ccaggttcac	gccattctcc	17580
tgcctcagcc	tcccagtag	ctgggactac	aggcgccac	cacgatgccc	ggctaatttt	17640
ttgtattttt	agtagagaca	gggtttcact	gtgttagcca	ggatgatctc	aatctcctga	17700
cctcgtgatc	cgcccgctct	agcctcccaa	agtgcgggga	ttacaggcgt	gagccaccgc	17760
gcccagcctt	tttttttttt	tttttttttt	ttttgagata	gagtcttgct	ctgtcgccca	17820
ggctggagtg	cagtggcggg	atctcagctc	actgcaagct	ccgcctccca	ggttcacgcc	17880
attctcctgc	ctcagcctcc	cgagtagctg	ggactacagg	cacccaccac	cacacctggc	17940
taatgttttg	tatttttagt	agagacgagg	tttcaccgtg	ttagccagga	tggctctcgat	18000
ctcctgacct	cgtaatccgc	ccgcctcggc	ctcccaaagt	gctgggatta	cacgcgtaag	18060
ccatggcgcc	cagcccatgt	ggccattttt	cagtgcagaga	agccagaggc	ccatcactct	18120
cggttgctcc	ctgggccatg	ctctgcctca	gccagaagca	ctgagggaag	gtcagcctcg	18180
gcccttgccc	cagccacagt	cacagataaa	ggggcctgca	caggctctgtg	tggctccaga	18240
gctcgtcacc	caacacacga	cgcttccatg	tgaatagccc	cagggtgcac	atgaagagcg	18300
atggccgctg	cagaggcaga	agaatccgcg	ggggaagcag	gtgggagaga	ggctgagaac	18360

agaccagacc	ctggagctac	agaccctatg	ttccaaccct	ggctgggact	agctgtgtgg	18420
ctctgggcaa	attcacatgc	ttctctgtgc	acaggggatc	aaaatagcaa	acacaggcta	18480
ggcacagtgg	ttcacaccta	taatcccagt	gctttgagag	gccgaggtgg	acacatggct	18540
taagctcagg	agtttgagac	cagcctgggc	aacatggtga	aacctcgtct	ctacaaaaaa	18600
aataccaaat	aaattagcca	ggcgtggtgg	tacgtgcctg	tggcttcagc	tacttggaag	18660
gctgaggcgg	gaggaacact	tgagcccaag	aagtcaaggc	tgtggccgcg	tgtggtggct	18720
cacgcctgta	atcccagcac	tttgagaggc	tcagggtgggt	ggatcacttg	tgatcaggag	18780
ttcaagacca	gcctggccaa	catggtgaaa	ccccgtccct	actaaaaaaaa	tacaacaatt	18840
tgccaggcgt	ggtggcgggc	acctgtaatc	ccagctactt	gggaggctga	ggcaggagaa	18900
tagttagaac	ttgggaggtg	gaggtttag	ttagccaaga	tggtgccgct	gcactccagc	18960
cagggggaca	gagcaagact	ccatcccaaa	aaaaaaaaaaa	acaaacaaac	aaacaaaaaa	19020
agaggtcaag	gctgcagtga	accatgattg	tgccaatgca	ctccagcctg	ggtgacaaa	19080
tgagaccctg	cctcaaaaca	ataaaaatat	aaataaaaat	aaaacataat	agcaaacgtt	19140
tcatagaggt	ggtatgagca	ttaaatgaac	tgataaacgt	ccttggaaaa	cagtaagtgc	19200
tatggaagga	ttcgctgccg	ccaccgccac	caccattagc	atgtttcaac	ctccatcacc	19260
ctcactgtcc	cctgtcacca	tcctttgacc	agggcactcc	cagctgcagc	ctttctatcc	19320
tcttgtccac	ccttcataac	tgtaagatca	ctcagctccc	aagaaccaca	gtctacaggg	19380
taaccacatt	tccaaatctc	aaaccagacc	cgctggtctg	cacttccagg	gacaacagga	19440
tattttcaaa	ccagcccaaa	agagatgtgt	ggctcagcat	aagaggaaca	ggagaaactg	19500
aggcctcttg	ccctgagaat	gagcttgga	gtggatgtcc	cggcctcact	caaaccttca	19560
gatgactgag	gccagccag	gagcttgagt	gtaccctcag	gtcataccct	gagccagaag	19620
caccagcta	atccactcct	catcactgac	tcctcccca	taaaaaacct	gtttgctggt	19680
tcaggctggt	aagttgtggg	ctgttttggt	acacagcaat	ggataactaa	cacacgaggc	19740
ctggcaagtg	tggagcaaag	ctgcccaagc	cctcaagtct	gttcatgtgg	gtgttgccct	19800
gtgtttgcag	aatccagcc	actgagtcct	cccagtcagt	cactactgcc	ctctgcacag	19860
acacctgcca	catccctgcc	tgggccagga	gctccactag	tgcaggaatg	gggtctgccg	19920
tcccaggagg	atccctgaca	cctagcacag	ggctagcagc	aggcagcact	tggttagtga	19980
ataaactgcc	cttcacctgt	acacagaagg	gatgtttcta	taaggggtaa	ttaagtacag	20040
agctgggaag	ctatgctgac	cagaaggctc	taaaagcaat	taaccaacga	ggggaaaacc	20100



cttcctactc attctcggcc catttttattg agcactgacc atgtggaagg ccccttggtg 20160  
 agactgggga atgcaccaat aactgagaca gcttccggct gttgccctca ggatgcctga 20220  
 gctgggatag ggccaggggtg ggggtggtgc gtgtgacagg gttactgttc acaaccctgc 20280  
 cgggccataa gccctcccca acaattccaa aatccaaaac gctctgaaga tggaaagctt 20340  
 ttgttgctca tctggtgaca aaacctcatt tgggtgatgg gccgggtgcg gtggctcacg 20400  
 cctgtaatcc cagcactctg ggagccgagg ggaaggatcc cttgagctta ggagtttgag 20460  
 accagcctga gcaacatgtg agaccccgtc tctacaaaaa atacaaaaat tagccagggtg 20520  
 tgggtggcgca ctctgtagt ccagctact cgggaggctg aggcgggagg atcgcttgag 20580  
 cctgggaggt gggggctgca gtgagctgag attatgacat tgcactccag cctgggtgaa 20640  
 agagtgagac tctgtctcaa aaaaacaaag ttaaaaaaaaa aaaaactgtg catgggtgtg 20700  
 ggctacagat agtcttttct gccctactta gaatgaacgt gccacatttg ctatagaaat 20760  
 attcaagggc tgggtggcaa tgccacacag accctgacgc tgttccaagt tctgagaagt 20820  
 cctgcattcc tcaggggccc agagtttcag agaagagtct gtaggcctga gttaagaagg 20880  
 aacgccttca aaagccctgg ggacaaagg gaaaggggtg cccaggact gcgtgggtac 20940  
 ctaccggaac gagccgtcca ggttggcacg gtggatgaag ctgagcttgg cgtcagccca 21000  
 gtagagcttc tgetcctcca ggtcgatggt cagtccattg ggccagtaaa tgtccgagtc 21060  
 cacaatgate ttccgggtgc tgccatccat ccctgccgcg tcaatccggg gcgtctcacc 21120  
 ccagtctgtc cagtacatgt acctgtgacg ggggcagggc aagagaagca gctaacacag 21180  
 atctgttttt tgtttttgtc tgcatagatg cagacatgaa acaacagaca gtgaacttgc 21240  
 cctaaaatct caccatcgg aaataaccaa caggatggt ttcaggtatt cctgccttaa 21300  
 gctgggcaat caaaatatac tatttccaac ttgttctcag ttaacagtaa attctgggca 21360  
 ccttcccttc ttgtggatag aaagattcct tgttcttttg atgattgcct agtgactct 21420  
 gctgtaagtt ttttaaagaa cttcaggtta tttctgattt ttttctacc atgaaaaatgc 21480  
 tgtaaataaa cctctaaaag gcaattcaaa acactcagga tggaatatta tttagtggta 21540  
 taaagaaatg agctatcggc tgggcccagt ggctcacacc tctaatacca gcactttggg 21600  
 aggccaaggc ggggtgatca cgaggtcggg agatcaagac catcctggct aacacagtga 21660  
 aaccccgctc ctactaaaaa taaaaacat tagccaggcg tggtagtgag cacctgtagt 21720  
 ccagctact taggaggctg aggcaggaga atcatttgaa cccgggaggg ggaggttgca 21780  
 gtgagcagaa atcgaccat tgcactccat cctgggcgac agagcgagac tccatctcaa 21840

aaaaaaaaa aagaaaagaa aagaaatgat ctatcaagcc atgaaaagac atggaggaaa	21900
cttaaagtca tgttagtagg tgaaagagcc aatctgtatg agtccagttc taaacactct	21960
ggaaaaagca aatacacaga gacagtaaag catcagtggg tgccaggagt tggagaggag	22020
agggatgaat gagtggagca cagaaaatca gggcagtggg actatcctgt atgacatgga	22080
atggtgggtg catgtcctta ctcatctgtc taaaccaaga atgtacaaat caagggcgaa	22140
ccctcgtgta aacgtggatt ttgggtgatg gtgcgtcagc cagctttcat cagttgtaac	22200
aaatgtacca ccctgcacag gatgctgaca gttgggaagg ctgtgtgggt gtgaggacag	22260
ggatgtatag gaactcagta cctgctgctc atcaattttg ctgtgaacct acaactgttt	22320
gaaaaaatta agtctattta aaaacaacaa aacatggcca ggcacgatgg cttgcacctg	22380
taattccagt acttcgggag gctgaggtgg gtgggtcact tgagccaccc tgggcaacat	22440
ggcaaaatcc cacctctaca aaaaataaaa attaaaaaaa agttagctgg gcatggtggc	22500
acactcttgt agtcccagct acttgggagg ctgacgtggg aggatccctt cagccctggg	22560
aggctcaggc tgcagtgagc tgtgactgta ccactgcact ccagcctgga tgacagagtg	22620
agaccctgcc taaaaaaaaa aaaaaaaagg ctgggtgcgg tggctcatgc ctgtaattcc	22680
agcgcctttg gaggccgaga tgggcggatc acgaggtcag gagatcgaga ccatcctggc	22740
taacacggtg aaaccccgtc tctactaaaa gtacaaaaaa aaaaattagc cgggcatggt	22800
ggcggacacc tgtagtcaca gctactcggg aggctgaggc aggagaatgg cgtgaacccg	22860
ggaggcggag cttgcagtga gccaatgca caccactgca ctctcagcct gggagacagc	22920
aacactccgt ctcaaaaaaa aaagaataaa acccatggct gggatggacc ctgaacctgc	22980
agctgcagct gttcctgggt aggtctgtgg gcgacgtggc tttgcttctc catgttccca	23040
agagacaagc atcacccatc catgagaaac aagcacatcc tcagggcgcc cttacgtgat	23100
ctctggccaa tgaaccaaga caaagtgagc agacaccagg tctgggatgg caggtcccac	23160
ccccaccagt gcccagtgtg ccctgtttgg aggtgaccac aggggtgtgtg cccagaggct	23220
gggcgtgact ctccagcggag accagagggg aaccacacca gcttgaggga ctcagtcccc	23280
atcccagcca gctgggatga gccacaggac acaagggtg gcagacctat tgtgttttgt	23340
ccacccttca cagcagagaa aggggacagt gccagaatg tcctctgagg agcctcctcc	23400
cactcttggg ccttgtaaaa tgggtgctgac tcccttgctc ccttcttctt ggggtgggcg	23460
gcaaacccca tccccctcag ccttagcaag tgatttagaa acaggcagct cgcccaagcc	23520
aggcatgaga gtgatcccg gacacagga gaacaagccc cgctttgccc tctgggggtc	23580

tccattcagc agaagaggca aatgacagac acacagccgc ctctccccc accatggtgc	23640
tctgcagcct caggagcctc aggtgcacca agggccaccc catccagggg gccatgcttc	23700
cttgagtggc atcgcttctg agcgagtacc atctccacct tccagagggg ctgtgacaag	23760
atcaacaaga atgagggcat aggagcctcg aaccaaaccat gccctcttcc ctgcagaggc	23820
tgactgcgcc cagctgctat caccaagccc ctgctcctcc ggccccgtgg ggacagggta	23880
agaggggtgt cacatggaac agctctccaa acagtccttc tcaagctgct gtctcctgtg	23940
catctagtga gaaccaacc aacaaaggga aggtgggaat tgctattccc attaggcaga	24000
tgagaaaact gagggcccga aaggctggcc tgttccaggt tacaggcgct gagcggctgc	24060
tctgggaaca cacttggtgt ctgctgaggg cccgagcccg gccatcatat gactcacctt	24120
tcgccagcaa agcccgggtg tgggtgaact tttcctggca gcctgggact ccaaggtgct	24180
ggcagccagc ccaggggaagg ctcccgcgtg cctgcggcag acgccttgct ttacctgcac	24240
gtccccaccc ctaggagcct ggacagagcc cagacctcc gccacctcct gagaaggtat	24300
caggggcac agtctggact tgggggggaa tccacacagg cttccccaa atgtccacc	24360
gtggcccatg gaaaaggctg gaaaacgtgc aggagcagga gcctccgcat ggagcataat	24420
tcacattcct tccccagtt tcataacaga ggctgctgg tttccttaa tggggaattt	24480
gcgagccagt cggtgaccag agactggttg gcgtggacgt gctcttgag agtctcaaac	24540
gctaccacaa gccagccaa attccacgga ggaaaatcga cttccgaaga aaagagctgc	24600
agcatggcct tcgtgcagag ccagctgcgg ttgtggtgt gtgttatttt aggggaagggc	24660
cattttgcat tttaaagagg gggttgggtt tcacctggc tttatttga gacccggggg	24720
ccactgcagc cccttgtag gctggtacag gccggggact cctcccatgc taagccagt	24780
tctttctggc ccagatcct caggggccag agggcatcc ccagagccc ctctgccacc	24840
cacatgggta ccctgggcct gggagggatg tgcttccct caacctgcc tggatgtccg	24900
cacggggcca cctgcattgc tgaaactgca acgaagtga gtctcaggag gggccccct	24960
ggctgcaggg ctcttgatcc ttttgccac gtgcacactg aggtggacgc tcggaccag	25020
agacccccct catgatgat gccggggcag gaacccccct ctctgaggaa ggacctggt	25080
gggggacagc actgcaggag ggcacaggag atgacgggg ctctagcagg gccgggagga	25140
aggccaagat gctcctcga accgtgtgcc tgtggccagg acagaggaca aaccaccct	25200
ccactgtccc cactctcagg acagcagtcc tgccccagga ctcagcggc acacttatgc	25260
ctgaggacca ctattcaagt cagtatttgg cgagcagggg ttgctgccgc gggcgctgtg	25320

acaggtgga atcctctccc tctccctctc cctctccgga gacatggagc ctacagggac	25380
agagtcagca cctcagggta ggaccatggc tggcgtcac agcatcactg gatctgatga	25440
gtgggagccg gcatctcact gttttcactc tctcattcaa atgactggag caaagggag	25500
gtgtggggag agggccagga atcaacacta aggtcaactt tgcccccagg ggcaggggtg	25560
ggagtgaaca gccacaggtg tgatcctggg gagggcttct gggagagaat tcagaggcaa	25620
gcatgtagag gaaccatttc aaatagttaa gaaaagccag agccaaacag ggacagttgg	25680
ctcgcagaga tgatgcaggc aaagccagct cagatctgag catgggaaag actactccca	25740
accaagggcc cagcatctcc caaccaagca ccaagtacct cccaaccaa tgccaagcac	25800
ctcccaatca aatacctccc aaccaagcac ctagcacctc tcaactggac accaactact	25860
cccaaccagg caccaagtac ctcccaacca agtgccaagc acctcccaac caagtaccaa	25920
ttacctccca accaagcgcc tagcacctcc caactgagca tcatgcacct cccaacagag	25980
catctagcac ctcccaactg atcacctccc aacctagcac cgagcacctc ccaaccaagt	26040
gcagagcacc tcccaaccaa gtgccaagca cctcccaatc aaatacctcc caaccaagca	26100
cctagcacct ctcaactgga caccaacaac tcccaaccaa gcgccaagca cctcctaaca	26160
aagtaccaat caccttccaa ccgagcacct agcacctccc aactgagcat catgcacctc	26220
ccaacaaatc acctagcacc tcccgactga tcacctccca acctagcact gagcacttcc	26280
caaccaacat agcaaaagcc ataaagaagt aaaaagacaa aaccacgtag gcatggagac	26340
tggacttctg gtggcgagga aagggcattt ttattataac gacagctaac atttgttgaa	26400
ctcaciaaact gttcttggtg ttttctcat gacatgcagc atggtcacgc ctctgtacag	26460
acaaggatac tgaggcacag agtggcaccc tgccaacctt gtctcatctt tttatcgaac	26520
ctacatgcag agtgccagca aatccagctg tcttttctct tcagaacaga tcccaaactc	26580
cgccactcct tacccccaca agtgaggtgt ccccgctgct gctttctgtc gccaggatcc	26640
cggtataaac cgtggagagg gtcctgccc ccacgccacc caccacacag ctactctcg	26700
ctccagccac caggggatgc cttccagcac gagtcagagc tggcacctcc tctgctcgag	26760
acctcatgtg tctctctctc acaccttggg cctgtttcc ctacattctg ctacagcccc	26820
tcaaacaggc cccgccccaa accagcccag ggcctttgca ctggctgatc cctctgcctg	26880
gaccgcgctg cccccagaca gccacacggt tctcagcctc atctgcttcc agtctcgact	26940
caaaagtcac caagaggcct tcccagcacc tgagctccga cggaagcccc tcgccacagc	27000
accaagcac tgctttatcc ccctacgcac acgtcccttt caaatactat tcatttacca	27060

tctcctccca ctcactgaaa gggccagaga ctgggctata cccgctgcgt ggggagcagg	27120
accaggcgca agggctcaca aatgcagtgg atgcctgggt gggaggtgag ggagctgcag	27180
cgacccacgc tgggagggaa cgcaatgaca ggaggagcgc aggtcctggc gacacgatgg	27240
ccatggcagc cgctgggtgag caaccgcagg ccggccctgg gagagggctt ctagcaagct	27300
gctatcttca gcctctccga ctactgcaga tgccccctcc tagccagaga cactgctaca	27360
ccagccgacc cttccaaaaa gaaggtcagt aaccccgca ctctggagc cacagtgcag	27420
ggggagaggg ctgagagggc aacagttcac caagcggaac agaggctgcc ccggaggtca	27480
gctggctccc cggcagctgc aggggtggct agccactcg gagggcagcg agggcatacg	27540
aggggctcca gggatgagt gttgcccagc acagcaccctc tgggaggccg ggggcacttc	27600
tcaggtagtg ggggcacgag gctgctctgg cctgacctca gggactcaaa atactttggc	27660
gataaattcc accgtgtccc acccctgctg gtaccccata cttacacaca gactggttca	27720
gatgcagaca ctctcgcgca catactcgct cacacgggca catacacgtg cacacacagt	27780
cacatgcgca cactcataca cacacaaata tccactcaca cgcatgcatg cacacacag	27840
gacacacaca ggctcacag tatgcacgca tatgcgtgca cacgcacaca cacacacaca	27900
cgctcacatc ctccactcc cacactcagt tgctcagaca cacacacgcc tggctctcac	27960
acaaacctgt tgggctctga aaggctccag cccttcccat gctcgtcaga agccagtcaa	28020
tggcttccta agtcaccaca cagatcaaag aggtgaactt ggccacatgg cactctgctt	28080
cctgagctcc caaacaccag ccttgggtgag gacagaccct caccacacac cctcattccc	28140
actaccctgg gcaggcccag aggaggggca tctgcaggat ctggcaacca gcccctccc	28200
cccggctcct gcagccggca ccatgggagt cagggggagg tcaactgcaa gggcaacagc	28260
aagttgggtg ccccaggact agagcccagg ggtcttcagt cctactccag agcttggaca	28320
ctgtcccaca gggcatggcc aagggaaggg cttccagagc cctgacttca gggaggaggg	28380
caggcgggct cctgtggcag gcctggatgc atggccgcc actcctggga ctttctaacc	28440
tagaatatct aggtcaggct ggggtgcagt gctcacgcct gcaatcccaa cactttggga	28500
ggccgaggag ggtggatcac ttgaggttag gagtttgaga ccagcctggc caacatggcg	28560
aaacctgtg tctactaaaa atacaaaacc tagccagggtg tggtagtgca cgctgtaat	28620
cacagctact caggaggctg aggcaggaga atcacttgaa ctcgaggagt ggaggttgca	28680
gtgagctgag atcgtgccat tgcgcaaaga agatctaggc cggccctca accggtgagg	28740
tccaggctgg gagtctgag agactgtggt gacactgaat gaactaacag gcaaagggt	28800

tccaactgag cctgggggtg gtgggaaatg gctcttgtgt tctagtcaag acctctgcca	28860
accagttctg acactgaccc agcacagaac ctgacaggtc agcaagggcc agggcttagc	28920
acagcccagg taaggggtgtg tgtacggccc ccagagtcac tcccaggctg caagaaaagg	28980
gacaaaggag ggacaagggg tggccaagca aactgttccc tctgctcggg agtctggggg	29040
gacctggcct agctggccag tggagctggg ccacctcccc ttaaactctc cccccggac	29100
ttcgactcca aagctttcct gccaccacg ctctccccac ctgggatcac ggccaggccc	29160
tgagccttca agggcccagg tgaactcagc cagactagga gctgaggagg acacagggca	29220
gcttccagaa cggacccgag aaccactccc agcaggttct gcttccagac aaggagctgc	29280
actttttcag ccaatgcaat tagaaagcca ggagaagggtg caaattccac ctgcctgagc	29340
gtccgcactt cccaggccgc ccaccataca cacagcaaag atgtgtttaa ccattcaaac	29400
ccatggccaa ccacatcggt tgccctcagac atgcaagttt taaaaaggaa cataactatg	29460
ggccaggcac ggtgggtcac gtctgtaatc ccagcacttt gggaggccga ggtgggtgga	29520
tcacctgagg tcaggagttc gagaccagcc tagacaccat ggtgaaacct catctgtacc	29580
aaaactacaa aaattagctg ggcgtgggtg tgggcgcctg taatcccagc tacttgggaa	29640
gctgaggcag gagaatcact tgaacccggg aggcgaagggt tgcagtgagc cgagattgtg	29700
ccactgcact ccagcctggg caacaaggga gactccatct caattaaaaa aaaaaaaaaa	29760
aaaaaggaaac ataactatgg agtctcaagg ggaagtaatt ccttcaacaa taacaaatct	29820
tgaaagctga gctctttttt ttttttgaga caggatctcc tcactttgtc gcccaggctg	29880
gagtgcagtg gtgggatcac agctcactgc agcctcgatc tcccaggctc aaatgatcct	29940
cctacctcag cctcccaaga agctgggatt acagggtgcat accatcacac ccgattcatt	30000
tttgtatact ttgaagagat ggggtctcac catgttgccc agtgtggtct tgaattcctg	30060
gactcagggtg atctgcccgc cttggcctcc cagagtgtctg ggattacagg cctgagccaa	30120
cacccccacg ggttcatttt cagagtcgca ccgagtgtctg gggttacagg cctgagccaa	30180
ccccccacg ggttcatttt aagagtgaca ccgagtgtctg gggttacagg cctgaaccaa	30240
ccccccacg agttcatttt cagagtcgca ccgagtgtctg gggttacagg cctgagccaa	30300
ccccccacg ggttcatttt aagagtgaca ccgagtgtctg gggttacagg cctgagccaa	30360
cacccccacg ggttcatttt cagagtcaca ccgagtgtctg gggttacagg cctgagccaa	30420
ccccccacg ggttcatttt cagagtcaca ccctttttct gaaaaacaac ttgggctcat	30480
gcaaattcga gagagagatg gtgacactcc ccgcccctg gaccagggtg gagtgcgagc	30540

aggggtttacc	cgtgagcggg	gtccaaggcg	atggccctcg	gctgggtcaag	gtcctgccag	30600
aagagcacct	tccgggatgt	gccattgagg	ttggccacct	cgatgcgggt	ggctctctgag	30660
tccgtccagt	acagcttctt	gcccaccag	tgcaggcga	ggccgtcggg	agagaccagg	30720
ccggagatga	ccacgttctg	cacggcggcc	cccgtctggt	tcaggtaggt	ctgcttgatg	30780
gcctcctcgc	tcacgtctgt	ccagtacacg	gctcccttgg	aaaactggaa	gtccactgcg	30840
gcgcatect	ccaggccgct	gaccacgatg	gtggactcca	gcttgactcc	gccggcgctc	30900
accagccgta	cgtcccggcg	gttggcaaat	agcaggagcg	gcgaggctgt	ggggcagaag	30960
caaaccgtga	gggccactgg	ctaagccagc	aagatacaca	gccctgggat	ggagcactat	31020
gccagagca	ctcctggtac	tgccctgccc	atgcccaaga	cctccagttc	cttctctcca	31080
cccctaaggc	gttgtcagga	agttgcctgg	gcagccccgg	cccgcacatc	tcagaggctc	31140
ctgcagcgca	gcaaacagcc	ttcttccac	attcgggtgac	agcacctggt	tgtttaccaa	31200
ctgttacgtc	tgttccccca	gatatgggtg	acccttctctg	ccatgcccac	aacctcccac	31260
atcgtcctcc	agaggctaca	ggggccctgt	cctgttctgc	agagaagcca	catccccctt	31320
gttggcctga	cacaggggat	ggggacatgc	aggcacagca	ctggccatgc	tgctcgctac	31380
agaccagcc	acagggccac	atTTTTtgag	gggttcagag	cccaggccag	acagagcctc	31440
aagattccct	tacaagtctt	tgaccactgt	ccaagctcag	gcccgtttcc	ttggccgtgg	31500
catcagcttc	ccatccaccc	ctgtattcca	tgtttctccc	accctgcttc	tggacattcc	31560
tacatttaaa	gggtcactct	ggaatgccac	cccttggttc	agacaccttc	cacagctccc	31620
tgtgccagtg	ccatgcagaa	caaggtcaga	ccccctagcc	tggcctccaa	ggccttggcc	31680
tctggcctca	cctacacttc	tctccaccac	cccaccccaa	gcattcctga	tctgcctgcg	31740
gccaggctgg	ctccctcacc	tcctgtgca	ccgcagccct	cagccccctc	tgctgtgca	31800
agaagcctca	tctcacagac	aacggtctca	ttcccacaac	gggtcaatg	agaaatcagg	31860
agaggccttc	agaccatcac	cccaccagac	acctcagacg	tcggaccagg	agggtccagc	31920
aacccccaac	acagactcag	agggactaag	aagccacatg	aggagtgaac	acaagatgtg	31980
gacaggagga	ggttaagggc	ctccaggagg	ctccatcagt	ccgtgttctg	ctgtcagcag	32040
ggttaggctg	ggctggccac	aaacaccccc	aaaaaacatc	tgaagccttg	gcttgaaaca	32100
gctgacattc	ctcatgaaaa	ctgcagaccc	ctgggtcctc	ctgcgcagat	gggggagccc	32160
agccaacccc	acactccac	cttcaccaag	aaagagaaa	ccaaaacaaa	ctcaactcag	32220
ccaatgacaa	tcacagaact	gaatcctgta	gttagttcag	ttggtttcat	ttcagcaggg	32280

gaaagatttg cagcctctat gagggtagct gggaacacaa agggccagag catggcccag 32340  
 gagaccccag cgcagtgggg tagatggttc cgagcacagg cctccctgcc aagacaagca 32400  
 ctgggtcaaa tcttggtccc tccattccc aggagacatg ctccacagga tgggaggaca 32460  
 cacagaggac ctgaggccag gaaaatgaca gcggcgctc cgccgcccc cccgtgctgt 32520  
 catcatctta ggtctacagt tctttgtggc aacgagggac actgtgaaag tcaaacaaca 32580  
 ggaaggcata ggccacaaat aaagacaaac gggacttcat ggaagctaa agattttgtg 32640  
 catcaaaaga cactatcgag agagtaaaaa ggcaaccac agaatgagag aaaatatttc 32700  
 caaatcatag atctactaag agattaatat ccatgaaata cagagaactc ctaaaactca 32760  
 acaatgagaa aacaactaag ccaactcaaa aatgggcaaa caacttgaac agacatttct 32820  
 ccaaagatga catataaatg gccataaac acatcaaaac aggcttaata tatccctaata 32880  
 catcaggga atgcaaatca aaactacaat aagataccat cttgcaccaa ttaggacggc 32940  
 tactatcaaa aaaacaaaat agcaagtgtt ggtgaggatc tggagcaact ggaacccttg 33000  
 tgcaccactg gcaaaaatgt gaaatggtgc agctactatg gaaaacagca tggcagttcc 33060  
 ccaaaaactt aaacacagaa ttaccatatg acccagcaat ttcgctttgg gttatatacc 33120  
 caaaagaact gaaaacaggg acacaatcag atatgcatac accttgatc acagcagcat 33180  
 cttcccaac agctaaaaca tggaggcagc caggcatggt ggctcacgcc tgtaatccca 33240  
 gcactttggg aggtgagggc ggggtggatca cctgaggtca ggagttcgag accagcctgg 33300  
 ccaacatggt gaaaccccgct ctctactaaa atacaaaaat tagctgggag tagtgacggg 33360  
 cacctgtaat ccagctact cacaagtctg aggcaggaga atcacttgaa ccctggaagt 33420  
 ggacgttgca gtgagccaag attgcgccac tgcattccag cctgggtgac acagcgagac 33480  
 tctgtctcaa aaaacagcaa aacaaaaaca aaaaaacaaa caaacatgga agcaacccaa 33540  
 gcgtccctct actgagggat gaatagcggg gcaaaatctg ctccatccac acaatggagt 33600  
 actattcagt ctcaaaaagg aaaaagattc tggtcaggca cgggtggctca tgccgtgta 33660  
 ccagcactt ggggaggctg aggcgggtgg atcacctgaa gtcaggaatt caaggccgc 33720  
 ctggccaaga ctggcacna gctacacana aagtatang ccccgaaa 33769

<210> 9

<211> 72049

<212> DNA



<213> Homo sapiens

<220>

<221> unsure

<222> (8356), (8385), (38585)

<223> Identity of nucleotide sequences at the above locations are unknown.

<400> 9

tataccttgc gcggaaccttc ggctcctgtg gtgaagacaa tatgaagaaa atagaaatta	60
cccataatatt tgccacacag acttagttgt gtccatgtat cttgtgcacc ttttttctgt	120
ttacggatca aaatcgactt ttagggctcag ggcgggtggc tcacacctgt aatcccaaca	180
ctttgggagg ctggagttgg ggttgggggg tggatcactg aagatcagga gtttgagacc	240
agcctggcca acatggcgaa actccatctc tactaaaaat aaaagattag ccaggcgtgg	300
tggtgggtgc ctctaattccc agctactccg gaggctgagg caggagaatc gcttgaacct	360
aggagacaga ggttgcagtg agccaggatc acgccactgc actccagcct ggcaacagag	420
cgagactctg tctcaaaaaa aaaaataaaa ataaaaataa taaatacata aattgacttt	480
taggagattg gttcaaacia tgtgtgtaat gttgtgtctg agtgtttttc atttatcggt	540
catgcaaatt ccgacatcat tcaactcttc ccagagtgtg ctgttttctt gcctgtgtca	600
tcacccgtca ccttgaatgc cctcgtttag gtaaaataag tacattttat tcaaaaatat	660
ttgaggacat ttgggttgtc tccagttctt tggctctgag ttttgctgtt cttgtggagc	720
catggtggtg tctggttgca ggaacctcca tgcgttccag ctgctgcttc tgctgtgtt	780
cttagagagg aaatgctggg gtccgcggtt cccgggctgc tgaccaggaa gcctgcggtg	840
ctttacggcc cttccagaag cgggagatgc cccacttaa gtgtcagaca ggcctttcca	900
cctcactggc agctctgagc ggctcccttc tatttgcaga tgactgagaa gttaccaatt	960
tccacgttta ctgactgtg tttctcctgt taatttgtat ttatagtctt cgctaattta	1020
ttgctagggg tttggtgttg tccctattga cttgtatgcc ttttaatttt ttaaacaaca	1080
ttaatatact tcattttttt agagcagttt taagtttaca ggaaaattaa gggacaagta	1140
cagagagttc cttccacctg ctgtcctcct ctctcctcc ccaccttccc tcttccccct	1200
attgtaactt tctttctgat attataaaag tcactcatgg ctgggcgtgg tggctcacgc	1260

ctgtaatccc agcacgttgg gaggcagagg caggcagatc acctgaggtc aggagttcca	1320
gaccagcctg gccaacatgg tgaaaccccg tctctactaa aaacacaaaa agttagccag	1380
gcgtggtggc gggcacctgt aatcccagct actcaggagg ctgaggcagg agaatggcgt	1440
gaacctggga ggcagagggtt acagtgagtc gagatcgcgc cactgcactc cagcctgggc	1500
aataagagtg aagcttcgtc tcaaaaacaa agtcacacac gcttcttgta cgagggtcat	1560
ttggccgagg ggccagatgg ctccaccatct agttgggaca ggccatgagc tcggaatgct	1620
ttttacatat ttacatggtt gagaagaaaa tcaggagaat aatgttttgg gacatgggaa	1680
aatgacatgg aatttgcat ttagtgcca taaatgaagt tttgtttgct cccagctgtg	1740
ttgactgagg caggctggct tcctacagct gcggcagagc tgaggaggcg ggaaggagac	1800
cgtgcaggcc gcagcaccga aaatatttgc tctctggccc tcccagagt gcttgccgac	1860
ctctgtccga cagctagaag gaaggatagg acccgccga cgataaccac tgttgacatt	1920
tgagcgcgtt tccttcccg cttttgtgtg agagtggcag tctgtttgct tttgtggtcg	1980
ggatctgctg cagcacggc gggctgtttg catgaggctt cctggaggat agggctgggc	2040
tcggagctgc acgcagtggg gcgtgtcctg catgcagtgg ggcctcagaa gagagctgtg	2100
gtgggcgggg cagtccaac gctggtgggt gccaggcctc cagctcaga tcagccccgg	2160
cgacaggttt gggccaccct ctctctggcc tctgtgcagt ggcccaggcc gtctgctctg	2220
cctggcacac ttgcctctgt ccttccactg aagcgtcct cttaccctct gctcccggt	2280
gggtacgttg aattgtgtcc ctcaaggaga tatgctaaag gtctaaccac aggaacctgt	2340
gtatgtgatc taatttgaa acagggctct ggctgatgta atcaagcgag gatgaggtca	2400
ccctagagta gggggcctat atccacgggtg ctggtgtcct catgagagca ggtgagcaga	2460
cactgacact caggggtgaa ggctgcatgg agtcagaaca gggcttagtg cgatggcggc	2520
cacaagccaa ggaactccaa gtatttcctg caacaccaga agctggaaga tgccaggaag	2580
gatcctgccc tggagccttc ggaggagtc tgccttgca gacgtcttga cttttgattg	2640
cagggatgca tgtcttaggg tgtgtggggg ggtgcatttc tgatgttaga agccacctgg	2700
ttggtggcga tgtgtcacgg gagccctctg caggttctgc gtgtccatgt ggtcggggac	2760
agagggtggc agggacggac ggtgtcgagc tggacatgtc catgacgtcg gccatccctt	2820
gggatggctt ttttgttttg aggataaggc tgctgccag gaagctgtgc cctgcctggc	2880
ccttgcccca agccctggc ctgtgcttgg cctcgcgga gggatgtgc cttctctcc	2940
tgcattcgtg caggaggaa ggggagaggt cagcagccc cctggaggag gctcgggcga	3000

ggggaagggtt tcactttcag gcaatgttgt ggggctgttt aaacaacccc aaagaaaacc 3060  
 atttggccaa actgttagtt tccaaacatt ttacttcctt ggtgtttaaa taaattccta 3120  
 ccaagactct gtagctggtc ccagggaagg agttggcctc tcttctttat agcccggcac 3180  
 agtcagtccc ctgcacctgc cctcccaac ccaggcctg ctccccgtg gccatggctg 3240  
 ctgcccggac ctctctacac acagaacctc ctggaggcca gctgtgggca ccagccttgg 3300  
 cagggctgtg gcggagccca ggctgctggt actctctctg cagctgctcc ctgctggcct 3360  
 ggctggacag cgtccccacc accactgggg tcacctctgt gctggtcaca gctcactcag 3420  
 accttcaggc aaatgggttg gatcctgcct ctctcccagg tgtctcagtc tctgcaaaac 3480  
 tcaaaaacct cagaggcctt gcagcctgag ggggtgtcaga gacacctcct tcgaatcagt 3540  
 aaacacctac agattcacc cagcagtga aggactgctt cgccacagag gtttgattta 3600  
 ctctaagta attggaaggg atgccgagaa taggttcctc atgggtgggac tagaggccct 3660  
 ctgctgacct agttaacaga gggctagggc tgggtgtgct cagcccctga aggttctagg 3720  
 cccatttggg acaccccgcc agaacctgcc acaacctgcc atgtggtgac agctacctaa 3780  
 atcccagagg ctcttgagct ggagagcaga cctctcaatc tcagcaggcc cccacacag 3840  
 acccataac ctagtctgc cttcacagta cagttcgtgg ctatgtgttc acggatgggtg 3900  
 ttgttcacct aaggctctctg cctgtgacc ccaagggcgt cctgagggca gattccaagt 3960  
 ctgtttcgtc caccctcct tccctagcag cgggtccagg gcctggcctg aactagcttc 4020  
 ccacagagat actggtggga tgatgaaggc agccaggcgg caagtgaaaa acgcacttcc 4080  
 tgcattgtgt ggctcctggg attgaagtgt ttgaggaagc aaagtgaagt gagctttcct 4140  
 cttgcggctg tgtgtccttg ggccgggagc ctacctctc tgagcgttgg ggtccttgtc 4200  
 agtagaatgg ggcacctca tagctcaagg ggtggtgtgt gaaaattgtg ctattgtgtt 4260  
 actttaatga tttttttttt ttcgagacaa agtctcacc caacgcgcag gctggagtgc 4320  
 agtggcgoga tctcagctca ttgcaacctc tgctcctgg gttcaagtga ttctcctgcc 4380  
 tcagcctccc aagtagctgg aattacagga gtgcgccacc aggccgggca ttttttcta 4440  
 tttttagtag agaggggggtt ttaccatgtt ggctaggctg gtcttgaact cctgacctca 4500  
 ggtgatccac ctgcctcggc ctcccaaagt gctgggatta caagcatgag ccaccgcgc 4560  
 cggcctactt tagtgatttc ttaggaggac agaggggaacg ggctggcaag acaggcttgg 4620  
 aatgtgtttt gggatcaagt gccggtttct gtctggcact ggcgttctct gtggggccat 4680  
 gatggacaca ctgctgaggt caagcgtgat tcgtcttgcg ctgtgcctgg cagtctcatt 4740

ggaaagtctt	gtagacatcg	tgtggatggg	gctcttcccc	gccaagccct	tggggacctt	4800
ccaggactgt	gatctcccca	cagtggctgt	taagcaggga	cctttcgtga	agtggagtct	4860
ctgggtccct	ccaagtcata	gctagacagg	gactcgggca	tcgccaagcc	tggctgatta	4920
ttcactggat	gaggagacag	gcccagagag	gggcaggaac	ctgcccagg	tcacccagca	4980
ggccccagag	gtttcgggtct	cggattctcc	ctgctcatcc	ctggatgtag	tgctgctgtg	5040
gatgtggttc	tgtgctgggg	gctgtggaga	gcagggggct	tgtgccagga	ccccagtga	5100
ggtggcgccc	tcgccatgag	gccgactgtt	ggtatggggc	ggccatccac	tgggggtgtg	5160
ggaggaacag	ctttcctgag	gaggaggtgg	cgggaggaac	agcttccttg	aggaggaggt	5220
ggcgggtgctg	tgtgacctgg	gccttgaagg	acaggtccat	tgtcaacaga	acattttggg	5280
agtggagcct	agagggagaa	aattttgtga	aattcagatt	ccctccccc	taccaataca	5340
caccaaataca	gatgcccctg	accagatcta	aatttggtc	tcagagattt	ccattgtagc	5400
tgggcacttg	gggaaccttc	taagtgtgc	ctctgectct	cccagcctg	cctgcctcag	5460
tttccccagc	cctggggccc	tgctgctgtt	gccatcacgt	gggcgcccct	tagtggagga	5520
atcagattat	gcactccggg	gcttgagca	ggagtcagga	ggggctcctg	tctttccttg	5580
aaacgttgga	tgccgggatc	ctggaacagt	ctctgcattc	ctcctggcga	gaaccagagc	5640
ctgggcacag	gggaccatct	gttgtttgaa	ggctgcagcc	tggcagggca	ctcaggagat	5700
ctggcagttg	gctgcagggc	caggtctagg	ggccagggca	tcagggaggc	tctgggctgg	5760
ttcagccccg	ggcccccttg	cagattgtga	cctgggcccc	tgtgcagggg	catggccaca	5820
ggatgctggg	aggggtctct	gaccctgacc	ttcttggtc	tgtgcatcct	tgagaccaga	5880
aaggtctgga	acaaatgagt	agacgatgcc	ctaacctggg	gagggagcca	catcctgatc	5940
ccagcaacct	cgggaaggat	ctgtcaggat	tatggggcac	cctggggggc	ccaagtctgc	6000
atgggtctcc	acttgcaatt	tctgtaggaa	gctctgataa	atccaaactg	ggggtcctag	6060
gacacagtca	gaaatgctga	taccgttgtg	tgtggagcct	cgggccctgg	gggtcaggag	6120
catgtggagg	gtgggccacg	ggggttcaga	agagaatcct	gtaaccccc	accccccaaa	6180
ctgaagccca	cttgagggcc	atggctgaaa	ggttgggggg	tctccgtgcg	tcctgtggag	6240
tgggtggtga	ggagtccttg	ggtttgacg	cctctggggc	tgagcggcgg	gaccccgtec	6300
acagcggatc	cctggggcct	gttgctcaga	tgctctcaga	gtgttgctgt	ggccacggag	6360
ggagcctgag	ttaagcttct	cttggtccgg	ttgtacgtg	tcaggtcaca	ctggtgagtt	6420
aggcagggca	cagatgcca	gagcagagg	aactttcctt	ggggattcaa	cacgtgcaag	6480

tcttaggggc	tggcaaatcc	tgccctcagc	tagagagggg	gctttttattt	gagaccagaa	6540
tcacctgagc	atcctcctgt	ccccagctgt	gtccagcctg	tctgcaggga	catcctgaga	6600
ggaccaggct	ctcccccat	ccacctgcct	aagtgccact	ctgaaccctg	tccacctgtg	6660
ccgtggaggg	gcgtgacctc	aagctgctca	gccagcagca	ggcttggccc	tggggggcag	6720
cagagacca	ggtggctgtg	gggtgggtgc	tctgtggcgt	ggttctgaaa	cttcgttga	6780
agtgtgtgga	cagtgccttg	cctgttctct	gtgggaccct	atttagaaac	gaggtctgag	6840
ttactggggg	tcactactgt	gttctgatgg	cccagctgtg	tggaggccgc	ggtgcagccc	6900
catccaagga	gccagggccc	tgggtctagc	cgtgaccaga	atgcatgccc	cggaggtgtt	6960
tctcatctcg	cacctgtgtt	gcctgggtgtg	tcaagtggtc	gtgaaactct	gtgttagctc	7020
ttgggtgttc	tgaaagtgcc	ccgggtctc	aggcctcaga	accagggttt	cccttcatct	7080
cggtggcctg	ggagcatctg	ggcagttgag	caaagagggc	gattcacttg	aaggatgtgt	7140
ctggccctgc	ctaggagccc	ccgggcacgg	tgctggggcc	tgaagctgcc	ctcgggtgtg	7200
ggagaggagg	gagcgatgaa	gtggcgctga	gctgggcagg	aagggtgagc	ccctgcaagg	7260
tgggcatgct	ggggacgctg	agcagcatgg	ccagcagctg	ggtctgcagc	ctggtacccg	7320
gcgggacttg	tggttggggc	tggtttgtgg	ccaggagagg	ggctggcagg	agacaagggg	7380
gactgtgagg	cagctcccac	ccagcagctg	aagcccaatg	gcctggctgt	gtggctctca	7440
gctgcgtgca	taacctctca	gtgcttcagt	tctctcattt	gtaaaatgag	gaaacaaaca	7500
gtgccagcct	cccagagggtg	tcattgaggat	gaacgagtga	ccatgtagca	tgggctgggt	7560
gcgtgtcacc	taacatcacc	agcctttgca	aggagagccc	tgggggcctg	gctgagtatt	7620
tcccttgccc	ggcccacccc	aggcctagac	ttgtgcctgc	tgcaggccct	tgacccctga	7680
ccccattgca	cctgtctcca	caggagccga	ggaggtgctg	ctgctggccc	ggcggacgga	7740
cctacggagg	atctcgctgg	acacgccgga	cttcaccgac	atcgtgctgc	aggtggacga	7800
catccggcac	gccattgcca	tcgactacga	cccgtagag	ggctatgtct	actggacaga	7860
tgacgagggtg	cgggccatcc	gcagggcgta	cctggacggg	tctggggcgc	agacgctggt	7920
caacaccgag	atcaacgacc	ccgatggcat	cgcggtcgac	tgggtggccc	gaaacctcta	7980
ctggaccgac	acgggcacgg	accgcacgca	ggtgacgcgc	ctcaacggca	cctcccgcaa	8040
gatcctgggtg	tcggaggacc	tggacgagcc	ccgagccatc	gcactgcacc	ccgtgatggg	8100
gtaagacggg	cgggggctgg	ggcctggagc	cagggccagg	ccaagcacag	gcgagagggga	8160
gattgacctg	gacctgtcat	tctgggacac	tgtcttgcac	cagaacccgg	aggagggcctt	8220

gttaaaacac cggcagctgg gccccacccc cagagcgggtg attcaggagc tccagggcgg	8280
ggctgaagac ttgggtttct aacaagcacc ccagtgggtcc ggtgctgctg ctgggtccat	8340
gcgtagaaag cctgnaaac tggagggagc cttttgtccc cctgncttca gtttcctcat	8400
ctgtagaatg gaacgggtcca tctgggtgat ttccaggatg acagtagtga cagtaagggc	8460
agcctctgtg aactgacca cagtacaggc caggcctctt tttttctttt tttttttgag	8520
atggagtctc actctgtcgc ccaggctgga gtgcagtggg gtgatctcag ctactacaa	8580
cctctgcctc ctgggtctaa gtgattctcc tgcctcagcc tctgagtag ctgggattac	8640
aggtgcctgc cactgtgctt ggctaagtgt tgtatttttg gtagagatgg ggtttcaccg	8700
tcttggccag gctgggtcga aactcctgac ctccaggatg ccacctgcct cagcctccca	8760
aagtgctggg attacaggca tgagccacca cggccgggtca ggccaggcct cttttgaaca	8820
ctttgcacac catgggtctt ttcattccagg ggggtaggta cagttgtaca gttgaggaca	8880
ctgaagccca gagaggctca gggacttgcc cagggtcaca cagcaggatg tggcagggtg	8940
ggggctgggc ctggcagcgt ggctccagct ttccagcata gaaatctgtg aaagcagata	9000
gtttgtcggg cggtagggga gactttctga gaccgcgcc agcggctcag agggtagtag	9060
ccaggggcct tcctgggggc tcataaccca gaacactgaa tgggaaaacc ctgatggagg	9120
aggcgagctg gagctgtggg tgccgatggg aagtcccaga ggagctggga ggtcagtagc	9180
ggtgctgccc tctgtggagc acttagtggg caccagggtg gtttccagggt tcatggccct	9240
gggacctgaa gctcagaagg tgaagtaact tgcccagggc acccgctcggg cagcggcggg	9300
cagaggattt gtgggctgtg gagcctgtgc tcgtggccca gccctggggg ttgtgagtgt	9360
gctggccggg gagcttttcc tgcaagtgga ctgggtgtcta ggagccagca tgtcaggcag	9420
caggcagcgg gagtgcagca ggcagcggga gcacagcagg cagagggcgg ggctcgagca	9480
gccatccgtg gacctgggg caggaggca tgtgggagag ggctgctcca tggcagtggc	9540
tgaagggtct ggttgtgccc cgaggagggt ggatgagggt aagaagtggg gtccccaggg	9600
gcttttagcaa gaggaggccc aggaactggt tgccagctac agtgaaggga acacggccct	9660
gaggtcagga gcttgggtcaa gtcactgtct acatgggcct cgggtgtctc atctgtgaaa	9720
aaggaaggga tggggaagct gactccaagg cccctcctag ccctggtttc atgagtctga	9780
ggatcccagg gacatgggct tggcagtctg acctgtgagg tcgtgggggtc cagggagggg	9840
caccgagctg gaagcgggag gcagaggggc tggccggctg ggtcagacac agctgaagca	9900
gaggctgtga cttggggcct cagaaccttc acccctgagc tgccaccca ggatctgggt	9960

tccttccttg gggggcccca gggaacaagt cacctgtcct ttgcataggg gagcccttca	10020
gctatgtgca gaaggttctg ctctgcccct tcctccctct aggtgctcag ctctccagc	10080
ccactagtca gatgtgaggg tgccccagac cctgggcagg gtcatttctg tccactgacc	10140
tttgggatgg gagatgagct cttggcccct gagagtccaa gggctgggtg ggtgaaaccc	10200
gcacaggggtg gaagtgggca tcctgtccc aggggagccc ccagggaactc tggtcactgg	10260
gcttgccgct ggcattgtca gtctccagc acttactgac accagcatct actgacacca	10320
acatttacia acaccgacat tgaccgacac cgacatttac cgacactgac atttaccac	10380
actgtttacc aacactgaca tctactgaca ctggcatcta ccaacactga catttaccga	10440
cactgacatt taccaacact atttaccac actgacatct actgacattg gcatctacca	10500
acaccaacat ttaccgacac caacatttac caacactgaa atttaccgac accgacattt	10560
accgacaccg ttaccaca cgcagcttta ccgacaccga catttaccga cactgatatt	10620
taccaacact gacatctact gacgctggca tctactgaca ccgatgccag catctacca	10680
caccgacatt taccaacact gacatttacc aacactgaca ttaccgaca ttgacattta	10740
ctgacactga catctactga cactggcatc tactgacact gacgtttacc gacactagca	10800
tctactgaca ctgacattta ccaacaccag catctacca caccgacatt taccaacact	10860
gacatttact gacactgata tctactgaca ctggcatcta ctgacacca catttaccac	10920
caccagcatc taccaacacc gacatttacc aacaccagca ttaccaca ccgatgttta	10980
ccaacgccga cgtttaccga cgcagcatc taccaacact gacatttacc gacaccgaca	11040
tttaccgaca ctgacattta ctgacactga catctactga tactggcatc taccgacact	11100
gatatttacc aacgccagca tctactgaca ctgatgttta ccaacaccga catttaccag	11160
caccgacatt tactgacacc aatatttact gacatcaaca tttagccatg tgatgggggc	11220
cggcttgggg gcaggccttg ctcttggcac tggggatgct gcagagacca gacagactca	11280
tggggtcatg gacttctgct tcttctccag cctcatgtac tggacagact ggggagagaa	11340
ccctaaaatc gagtgtgcca acttgatgg gcaggagcgg cgtgtgctgg tcaatgcctc	11400
cctcgggtgg cccaacggcc tggccctgga cctgcaggag gggagctct actggggaga	11460
cgccaagaca gacaagatcg aggtgaggct cctgtggaca tgtttgatcc aggaggccag	11520
gcccagccac cccctgcagc cagatgtacg tattggcgag gcaccgatgg gtgcctgtgc	11580
tctgctatth ggccacatgg aatgcttgag aaaatagtta caatactttc tgacaaaaac	11640
gccttgagag ggtagcgcta tacaacgtcc tgtggttacg taagatgtta tcattcgcc	11700

aggtgcctgt agacacagct acttgagac tgaggtggga ggatcgctgg agtccaagag	11760
tttgaggcca gcccgggcaa aggggacaca ggaatcctct gcaactgcttt tgccacttac	11820
tgtgagatTT aaattatttc acaatacaaa attaagacaa aaagttaatc acatatccac	11880
tgccctgctt aagacagaaa acatgggtgt tgttgaagcc agaggcagct gctggcctga	11940
gtttggtgat tggttcctaa gcagttgaag gcagttttgt tttccatag atgtctgttc	12000
tccctttgct ggggtgcagcc tcgccctgct gctgtggtcg ggtttcagtg gcctcgcccc	12060
gtggacgcag cctcgccctg ccgctgtggt cgggtttcag tggcctcgtc ccgtggacgc	12120
agcctcgccc tgcgcgtgtg gtcgggtttc agtggcctcg tcccgaggac gcagcctcgc	12180
cctgcgcgtg tggtcgggtt tcagtggcct cgtcccgtgg acgcagcctc gcctgcccgc	12240
tgtggtcggg tttcagtggc ctgctcctgt ggacgcagcc tcgccctgcc gctgtggtcg	12300
ggtttcagtg gcctcgcccc atgggcgtgc tttggcagct tttgtctac ctgtggagcc	12360
tctcttgagc ttttttgttt gttgtttgtt tttgtttgat tttgtttgat tgtttgtttt	12420
tgttgctggt gttgttgccc aggctggagt gcagtggcgc gatctcagct cactgaaacc	12480
tctgcctcct tgggttcctg ccattctcct gcctcagcct cccacatagc tgggattaca	12540
agtgcccgcc accacgcctg gctaaatTTT gtatttttag tagacagggg gtttcaccat	12600
gttggtcagg ctggtctgga actcctggtc tcacatgatc cacctgcctc ggccctccaa	12660
agtgttggga ttacaggcgt gagccaccgc gccagccct ctgttgagca tattttgagg	12720
ttctcttggg gccagtgata tgtacatgtg tccccatcgc accatcgtca cccattgagg	12780
tgacattggt gcctctcctc ggggtggatg cctccctctg tttccagcaa cttctgaagg	12840
atTTTctga gctgcatcag tcttgttga cgtcaccatc ggggtcacct ttgctctcct	12900
cagggctccc aggggaggcc cgaatcaggc agcttgagg gcagggcagg atggagaaca	12960
cgagtgtgtg tctgtgttgc aggatttcag accctgcttc tgagcgggag gagtttcagc	13020
accttcaggg tggggaaccc agggatgggg gaggtgagt ggacgccctt cccacgaaaa	13080
ccctaggagc tgcaggtgtg gccatttctt gctggagctc cttgtaaaatg ttttgttttt	13140
ggcaaggccc atgtttgcgg gccgctgagg atgatttgcc ttcacgcctc cccgctaccc	13200
gtgggagcag gtcagggact cgcgtgtctg tggcacacca ggctgtgac aggcgttggt	13260
ccatgtactg tctcagcagt ggTTTTcttg agacagggtc tcgctcgctc acccaggcga	13320
gagtgcagtg gcgcaatcac ggctcgctgt agcctcaatc tccctgggct caggtgatcc	13380
tctgcctca ccctctgagt agctgggact acagacacat accaccacac ccagctagtt	13440



tttgtgtatt ttttgtgggg ggagatgggg tttcgtgtg gtgccaagc tgatctcaaa	13500
ctcctgaggc acaagcgatc cacctgcctc ggctcccaa agtgctggga tgacagggat	13560
cagccgtcac acgcagctca atgattttat tgtggtaaaa taaacatagc aaaaaattga	13620
tgattttaac cattttaaag tgaacagttc aggctgggagc tgggtggctta tgcttgtaat	13680
cccagtactt tgagaggctg aggtgggcag atcacctgag gtcaggagtt tgagaccagc	13740
ctggccaaca tgatgaaatc cagtctctac taaaaataca aaaattagcc gggcatgggtg	13800
gcagggtgct gtaatcccag ctactcggga ggctgaggca ggagaatcgc ttgagcccgg	13860
gagggtggagg ttgcagtgat ctgagatcat gccactgcac tccaatctgt gtgacagagc	13920
aagactctgt cttgaaaaat aaataaataa aaaaaatttt aaaaagtga caattcaggg	13980
catttagtat gaggacaatg tgggtgcagg atctctgcta ctatctactt ctagaacact	14040
ttcttctgcc ctgaaggaaa ccccatgccc accggcactc acgcccattc tccccctct	14100
cccagcctct gtcaaccact aatctacttt ctgtctctgg gggttcactt cttctggacg	14160
tttgtgtga ctggaatcct gcaatatgtg gtccctgcgt gtggcttctt tccatagcat	14220
tgtgttttcc agattcacc acacattgtc gcacgttatc agaatctcat tctgactgg	14280
gtgcagtggg ttaggcctgt aatcctaaca ttctgggagg ccaaggcggg acgatcactt	14340
gaggcaggag tttgagacca gcctggccag cctagcaaga cccagctac caaaaaattt	14400
taaaagttaa ctgaacgtgg tgggtggggg cacttgtggg tcccagctac ctgggaggct	14460
gaggttggag gatcgcttaa gccagggagg tcaaggctgc agtgagctat gatcgacca	14520
ctgcactcca gcctggacaa cagagcaaga cctgtctga aaaaaaaaaa aaaaaaaaaa	14580
gttcctttct ttttgtggct ggatgacatc ccattgtatg gccacagcac attttgtttg	14640
tctgtttatc ggggtggggg cagtggtttc caccttttgt ctctgtgaa taatgctgct	14700
gtgaacattt gaattcaagt ttttgtttga acacctgttg tgaattattt ggatatatgt	14760
gtaggggtag gattgctgag tcttatggta atgttaggtt tgacttactg aggaaccatt	14820
aaactgtttt caacagtggc tgcgccgttc tgcacccca ccggcagtgt gtgagggttc	14880
tgactttacc tctcacaaa cgcttctttt ccatttaaaa aaatattcag ccagggtgctc	14940
tggctcacgc ctgtaatccc agcactttgg gaggccgtgg cgggcggatc acctgaggtc	15000
aggagttcga gacgagcctg gccaacatgg tgtaaccca tctctaccaa aaatataaaa	15060
attagccggg tgtggcagcg ggcgcctgta atcccagcta cttgggaggc tgaggcagga	15120
gaatcacttg aaccggggag gcagaggttg cagtgagcca agatcgcgcc actacactcc	15180

agcctgggtg acaagagtga aactccatct aaaataaaaac aaaaataaaa ataaataaaa 15240  
 atttattaaa acattcatca cagccagcct agtgggtgtc ccatgtggct ttgcctcgca 15300  
 tttccctgat aactaggatg ctgagcgtct tgtcccaggc ttgccacacc tcagcacttt 15360  
 gagatacgtc gcacagtcce catttgcgaa cgagaaatga ggtttaggga acagcagctg 15420  
 tgtcatgtca cacagcgagc aggggggtctc tgagccgtct gacccacag ccgaccaagc 15480  
 tccaatectt accgcctect agtggtgtgg atgtagccca ggggtgctccc acatttttca 15540  
 gatgagaaca ccgaagctca aaacaggagc gttttgtcca cattggatac acgatgtctg 15600  
 tgggttggtc ctgaagtcac tttatatctc agtgggtccag actggagtag gacaggggggt 15660  
 tctggggaat ggggaaggtg tctcaggtga aaggaaggaa ttccagattc tccatactgt 15720  
 ccttgggaag ttagaagact cagaggggtct ggcaaagtca gacaaagcaa gagaaatgca 15780  
 gtcaggagga agcggagctg tccaggaaca ggggggtcgc aggagctcac ccccaggaac 15840  
 tacacttgct ggggccttcg tgtcacaatg acgtgagcac tgcgtgttga ttaccactt 15900  
 tttttttttt tttgaggtgg agtctcgctc tcttgcccag tctggagtgc agtggcacga 15960  
 tctcggtcct ctgcaagctc tgcctcccgg gttcatgcca ttctcctgcc tcagcctccc 16020  
 gcgtagctgg gactacaggc gcctgccacc gcgcccggct aatttttgta tttttagtag 16080  
 agatgggatt tcaactacatt agccaggatg gtctcgatct cctgacctca tgatccgccc 16140  
 gtctcggcct cccaaagtgc tgggattaca ggcgtgagcc accgcgcccg gcccgatttc 16200  
 ccactttaag aatctgtctg tacatcctca aagccctata cacagtgtctg ggttgctata 16260  
 gggaaatga ggcttacagg ccatgggtgt ggacacacag aaggggacgga ggtcaggagg 16320  
 tagaagggcg gagagagggga acaggcggag gtcacatcct tggttttcaa aatgggccag 16380  
 ggagagacac cctctgagca tggtaggaca ggaaagcaag attggaacac attgagagca 16440  
 accgaggtgg ctgggcgtgg tggcttacgc ctgtaatccc aacactttgg aaagctgagg 16500  
 tgggtggatt gcttgaggcc aggagttcaa gaccgcctg gccaacatgg tgagaccccg 16560  
 tctctactaa atatacaaaa attagccagg cgtgatgggtg catacctgta atcccagctg 16620  
 cttgggaggc tgaggcagga gaattgctta aacctgggag gcggagggtg cagtgagccg 16680  
 agatcccgc actgcactcc agcctgggcc acagagttag actccatctc aaaaaaaaaa 16740  
 aaaaaaaga taaaaagacc aaccgaggaa ttgaagtggg ggggcgtcac agtagcagaa 16800  
 gggggatcgt ggagcaggcc accctgtggt catgcactgg aagctcatta cctgacgatt 16860  
 tggagctcat cactgggggc ctaaggagaa tagatactga aggatgagga gtgatggcgc 16920

ggggcacggg tgtctttggt ggccagaact tggggactgc tggggtgcct cactgcaggc	16980
cttctcagcg ccccttatat gcttacacag gctgtttcta agagggggat acattgcata	17040
agcgttttca gactacctca tcatgggtcc ctttctttac cctctgtggc cctgggtggcg	17100
cactctctgg gaaggtgcag gtggatgcc agaccgcc tgccatccac ctgcacgtcc	17160
agagctgact tagcctcgag attgctgctg gcacctctg ccccgggaca cctcgatgt	17220
gcccgtggag atgctggctc tgtgttttct gctggagttt ggtgcgtctt ttctctctgc	17280
aagtggccac cgctcttggg tatgtctca ggcttctgc agtcatggct gcttctcagg	17340
tccttgccca gcgccaggag caaacctcc tggcactttg ttcaggggtg gatgcgccag	17400
tgttctctgct gtggaccgcc atctcacatg aggtcttgg gcctgcaggc tcgttcagga	17460
aacacccgct gagtatgcag tgtgtgccag ctgtgtccca ggcaatggcg gggacagtgg	17520
ctgctgctgg ggttggtg gcttctgggg actctgggga cagctgaggt gcaaggagcc	17580
acggctcctt gaggatgcag ttggactcca ggtggaagg atggttgggg gaggtataaa	17640
tggggtcagg gaggagacac atttggaaca atgggaacat ttttaagatg ctatgtcggg	17700
aggcaacaag gtggccaacc caggtgctga ggagcccaca ccagccctgg acgtgttttg	17760
ccgctcacct ttgctgggga gtggtgggag agaggattcc gttccacgtg gtggtgtgcg	17820
cagctgggct gtgtggagct gggcgctagg aggaagggtgc tttctgcggg gctagccggg	17880
ctctgccttt gaacacaatc aggctccagg ttttcagcat ccagtgcatt agaggacttc	17940
acgggcagct gtggctgac ccttgatgaa ttgggagaag aacaaaggtc tatgaaatga	18000
ggtttcatgt agatggcatt agagacgcc acaacagatt tacagagtgg agcggagacg	18060
gcggatgggt ctgggaggcc cctcctgctg gccttgactg tgacagctgt cctgggaatc	18120
agcttccagg ccgccccagc agcctgactg acacacacag gggtttttagc cccatctgc	18180
gaccagctgt tgccatcatc agtgacagct gggagtggcg gtggttccag cctggggcac	18240
cctccccacc tgctggggcc caccagggc agtctgaca cctacagggt gcttggagcc	18300
gcacccaggt cctgccccac cacgtgtgaa gcccgagtgg tcgtgggctg aggtccctg	18360
attgcacccc cacttccctt ctgcttcaca tagctgcctc ttctcacctg ttttccagcc	18420
tcctgggcta ggaattccag tggtgtgctg gctttgcccc aggacacctc cttagccctc	18480
ttctgagtc tagagccccg ggggttgga gtccctggccc ctgggacacc tgcagccaca	18540
ctcagcttct cctgtgagcc tccagcatgt cccctcagga ccaagccctc acgttcttgc	18600
ctccccgcc acctgggctc agccagggga aggcctggct gggagcgtct cccctctgcc	18660

ctgcccttct cccctcctac cctgcccttc tctcctctgc cccgccatgg cttttatatac	18720
ctgtgccaca agacatggct gtgtgtgaaa gtggcagggc ctggcatctc tgtgggtctc	18780
tgaggcccac gctccagtgc cactcttccc acccgctggc cgtgccctca tgctggaggg	18840
acagcccagc cctctcccga accccagccc catgtgcccc gctgcccccg gccctctccc	18900
ctggaagccg gggtcactcc agccgtatgc catgggtggg acatcctgct tccttggcct	18960
tccaggggaag gtccctcttc caaatggcga cacctggctc ctgcctggag gctggaagct	19020
gtggcccttg tatgcccctc cagggctctgt gcgctcggtt ggcccagatt cccatcacgc	19080
tcacatcac catcatcatt gtcatttcgc ttgtctgtga gccggcctgg tctcccagag	19140
cagagaccct ctgaggcca gccctgagtg gggctctcgt gctgaccct gacggggact	19200
caggacgtac caggtctggg tcaggagtga ccccaaac tcgtgccctt tgacaggcac	19260
ccctgacttt tgctaagtgg gtggaggtga catcacttac agcgggagtg atgggacagg	19320
gtctgttggc tgcactgtgc tcccagggat ctggggagag gctatatccc tgggctttgg	19380
cactgcagag ctgtgtgtgt ttgtgtgtgt gtgtgtgtgt gtgtgtgtgt gtgtgtgtgt	19440
gtgtgtgttt gcgtgcgcgc acatgtgtat aagatctttt tttattacat gaagcaagat	19500
aactgttgct gtttcctttt gggttttgtg ttcaacagag tggggtactt cttccctcag	19560
acaacagaac tctccccctt aaacacgtgc tgtcagaggg tgggtcttgg gctcatgtct	19620
gtttgcacag ccgagtcaga ggaaacacag ggttcttcat aaaaactg cacagcaggc	19680
gactgtccag agtcagcctg caggacggca gcagccctgc cctcagagc acagctaggg	19740
tgggctgctt tgggatctcc cgtcattccc tcccagctgg cagccggcgg ccggccatt	19800
ccttgggtgtg ctggtcaggg gggcgtgcgc ctgctctgct caccctggga atgggacaga	19860
agctggcagc tcggagagga cagggtgga cccttgggtg gcctctggct ggaccatctc	19920
attgtcctca gacacagcct ctgggtctta gtttcatttc ctgaaaaaca agtgcacaga	19980
actagagcag gagtcagag ctacggcccc cgggccagat ccagccctgc cacctgtttt	20040
cacaccatgc tcaagctgag tgggttttac attttttaac tacttgaaaa aaaaaaagcc	20100
aaaggagggt tcattgacca tgaaaattat atggaattca aaaaaaaaa attatatgga	20160
attcaaattt cagtgtccat aaataatttc ttgagacagg gtctcgctct gtcaccagg	20220
ctggagtgca gtgctatggc atggctcgt gtacccttga cctcccaggc tcaagcgatc	20280
ctcctgtctc agcctcctga gtagctggga ctacgggtgt gtgccaccaa gcccggttaa	20340
ttttttttta attttagtaa agacagggctc tttctatgtt gccaggtt ttctggaact	20400

ccatcttggc ctcccaaagt gctgggatta caggctcgag ccacggagcc cagcctgttt	20460
ttgttttttc actgataaag ttttgccggg tgtggtagtg tgtgcctcta gcgatttggg	20520
aggctgaggt gggaggatcg cttaaagccca ggagtttgag gctgggctca agtgatcagg	20580
aggtgaacta tgatcatgtc attgcattcc agcctgggtg acagagcaag aacctatctc	20640
ttaaaaaatat atatttaaaa agtattgggt gtgggtggctc acgcctgtgg tcccagctac	20700
ttaggcatct gaggtgggag gatggcttga gcccaggagt ttgaggttgc agcgagccaa	20760
gatcgtgtca ctacactcta gcctgggtga cagagcccag accctgcctc tttaaaaaaa	20820
aaaacaaaaa aacatgtatt ggaacacagc catgcctgtt cagtcacgtg ctctccatgc	20880
tgttttctgc tccagagacc cttatggcct gaaagctgaa aatattttct atcctttaca	20940
aaaaagtttg ctgacctctg tccctggaaaa ttcattctcc aagttctctt ccggcactgg	21000
cgttcctggg tgtcctaaat ttggcccttg ttatttctga actctgtttt ggctctgttc	21060
cctcccagga gccaggacag gcacgttctc tgcattctgt cccctgacgc ccagaggctt	21120
ggctcggtc aggcattctt ggaaatatct ggctccagga aaggcagagg cctcctgagt	21180
cggcccagag ggaacctgcc ccaggtctgg gggaggcctg acccagcaga gtggcttttg	21240
ccgatgggtt gggccggtca agatgtgctg aaagttgtcc tcagaaggcc actttgggat	21300
tccttcctcc agtattagag caactgagag ctgctcattg caagcctgat gttttcccag	21360
ttggccgggt ccaccgggtg ccctgggatt ctgggatctg ggtggaaaagt agggggcttg	21420
ggggagtgtc ctgggttctg gaatccaggt ggcaagtggg gaggttcagg gagtggcttc	21480
tgagccacca taggggtctc tgtgggaggc tctgcccata caggagattc cgcaggccct	21540
gccggcccag agccagcgtc ttgcgcttgc cgaggctaca gccagcccca gccgggtgga	21600
acagcccgtc gcctcctctc actttgtttt ggggccacct gggagtgtgg agcaagggtg	21660
gagagggagg aagtggctgc cggccgctgc ccagcacctc tgtttgcctt gggccctctg	21720
tgggctcctt tttattgtc ttcaatgaag ccagggaaat ggacttcctt gcctcacttc	21780
agttcaacat gtctggaagt ttggtattaa aattaagaaa gtgtggaaat agagcaagaa	21840
gagaaaaatc tctccaagag ataatagtga cctctgagct gggcgcggtg gctcacgcct	21900
gtaaatccca gtactttggg aggctgaggc gggcagatca cctgaggctg ggagtttgtg	21960
accggcctga ccaagatgga gaaaccccggt ctctactaaa aataaataaa taaataaata	22020
aataaataca aaattagcca ggcattgggtg cgctgccta taatcccagc taaggcagga	22080
gaatcgcttg aacctgggag gcaaagggtg cagtgaacca agatcacgcc attgcactct	22140

agtctgggca	acaagagtga	aactccgtct	caaaaaaat	aaataaataa	aaaataaaaa	22200
tagtgacctc	tggccaggtg	tggcagctca	tacccgtaat	cccagcactt	tggaaggaag	22260
gccgagatgg	gcagattgct	ttagcacagg	agtttgagac	cagcctggcc	aacatggtgg	22320
aaccccatct	ctacaaaaat	agaataaaat	ttaagaggta	atagtgacct	tttggtagat	22380
cgaaacctgg	attgctttct	ttttctaaat	gctgattctt	ttctttgtgg	tgttttgtgtt	22440
ctgtgcogat	gtccctcccc	cagccctggt	attgtgagtg	gaagaagggg	aaaggggttcg	22500
cccgtactg	tgagcccttc	ctctcacgct	gggtgtcctt	ggagaagcct	gcacttcttc	22560
attgtacgcc	agggctgggt	ccctccctgg	agtggttctg	tgctgctggg	atggggccaa	22620
ccctcagat	gtttttctgag	tgtcacacac	aggtgtgtgc	attcatggcc	tttgctgttc	22680
ttcctgttgt	ggaggcaaaa	atgtgaagaa	ccctagatga	ttttgggacc	agggctccat	22740
cacctgctgt	tcattgcaca	ccggagcctc	caggcatggg	tggagagctc	agacttccag	22800
gcacggctgc	aggggctggt	ctaaccatgt	tcccgccgcg	ctgctcgtca	gaaccgcctg	22860
ttgggagctg	ttatcatgat	accatacctg	ggccctgggc	tatccgattc	tgacttaatt	22920
gctccaggtt	ggggccaggc	cgttgtttgc	tgttttgttg	tttcttctgt	gacgttagcc	22980
actgggctaa	tctgagcccc	tcagttacag	gtggagaaac	tgagacccat	gggggtgcaa	23040
ggaacttgccg	aggaccacga	gccccttggg	ggcagagctg	aggcggggcc	tggctttggg	23100
tcccagagct	tccagtcctc	ttcccgtctc	cctaacagct	tttttttttg	agacaagatc	23160
tcacctgtc	accagggctg	gagtgcaatg	gcatgatctc	ggctcactgc	aatcttcgct	23220
agctgcgttc	cagcgattct	cctgcctcag	cctcccagac	agctgggatt	acaggtgtgt	23280
gccgccatgc	ccagctcggt	tttttttgta	cttttagtag	agatagggtt	tcaccatggt	23340
ggccaggtcg	atctcgaact	cctgacctca	aatgatccgc	ctgcctcggc	ctcccaaagt	23400
gctaggatta	caggctggga	tcacactgtg	cctggcccta	gcagctttgt	cctgtgccat	23460
ccaacaacag	atgaccgaag	tctttgtttc	ttaacatgca	ttccatctgc	cttacagttt	23520
tgccacctgc	aaaacagagg	acttgctcgt	tttctggtaa	gctggaaatg	taatctggta	23580
gcaggaggcc	tgtggaagct	tgcctttaat	ggccttgtgt	ctctttcatc	ctgtcctgag	23640
agccggagaa	cttgatggtt	gcacctaaat	caaccttcct	gttaacatac	agttctgcag	23700
gctcatggat	catcagaacc	acgtcctatc	tcacgcggct	gtatgcttcc	gttggttcag	23760
gtgtttttac	cttgacagta	ttttctcctc	ggtggctttt	gcgggtggtg	cttttaataca	23820
gcattgactc	ttcaagaaaa	atatttagct	gctacatctc	agaggagaca	gggtggaaag	23880

catctgagac ctgcaggctc agacttagaa ccagaagtgc cctcagagtt catccggccc	23940
tgacccagcg ggaaatgagt tcacagagaa gcgggagaaac ttgccccag gccctgccgt	24000
tgctcataac tgccccaggt ccttacattt gctccaggtc ctgccccagg cctgcagtt	24060
gctcataact gccccaggtc cttatatattg ctccagggtcc tgccccaggt cctgcagttg	24120
ctctgtgtgg tgggtgtgat ctggagccct ccgcccattg ctgcacctgg ggcaggcatt	24180
gctaattgat ccaggactc cttcctgcgg agcacgccct ggttctccag gcagccgctg	24240
cctgtcagcc tgcaagtgggt cgggagagga cacctgcttg cctgggtctgt tccaaatctt	24300
gcttctcatc ccagcacagg taggggggtgc tatgggaaag ggatcctcag ttggccctgt	24360
cactgctcta tcagctgggg acgtggcatc ctagtgaaaa catcatggcc gggcgcggtg	24420
gctcacgcct ggaatcccag cactttggga ggctgaggag ggtggatcac ttgaggtcag	24480
aagttcgaga ccagcctgggt caacatgggtg aaacccatct ctactaaaaa tacaaaaatt	24540
cgccaggtgt ggtggcgggt acctgtaatc cgagctactc gggaggctga ggcaggagaa	24600
tcgcttgaaac ctgggaggtg gagcttgcat tgagccgaga tcttgccact gcactccagc	24660
ctgggcaaca gagtgaagcg ctgtctcaaa atctcaaaca aacaaacaaa caaaaaacaa	24720
acaaacaaaag cgtcatttat ccagcacccc tggggaacca tgctacctgg tgttttatgg	24780
tacctggcaa ggtgcagggtg aagttgctgc tcttgggcat tgaaccgctc ttgtttgggg	24840
cagctcaggc cccaggcagg gtccgggttg gctctcgttg gtgtggccct ggcccatcca	24900
gacctatatt tctgccgtcc tgcagggtgat caatgttgat gggacgaaga ggcggacct	24960
cctggaggac aagctcccgc acattttcgg gttcacgctg ctgggggact tcatctactg	25020
gactgactgg cagcgccgca gcatcgagcg ggtgcacaag gtcaaggcca gccgggacgt	25080
catcattgac cagctgcccg acctgatggg gctcaaagct gtgaatgtgg ccaaggtcgt	25140
cggtgagtcc ggggggtccc aagccatggc tcagccatgc agacttgcac gaggaggaag	25200
tgacgggtcc atgcctgggc ataagtgttg agctcagggtg ccccgacctg gggaaaggca	25260
ggacaggaaa ggtgacagta tctggccaag gacagatggg aagggaacaa gggagctgat	25320
tagggagtgg ttatggacta ggaatgtcgg taacaatgggt tagaaaagtga ctaacatttg	25380
ttgagcacct gctgtgtgcc cggccctggc cgggagcctt cgtgccca gtagccccgt	25440
ctgcaaatgt agttccttgc cctactcgca ctggggagca ggacgcagag ccgtgcaact	25500
cacagggtgcc aagctcagga ctccctcctg ggtctgcctg ggctgggctg tgcttgttgc	25560
ccctgtggcc cacgcatgtg caccttccac ctgaaagcca ggatcttcag gacgtcccc	25620

gaggaggtcg ttgtctggca caatgatttg tctcttcctg aaaaggtgac agagttacac 25680  
 tggagagagc agcatccagg tgcggcaggg acaggcctgg ggctcgcggg cagggactct 25740  
 gtgtcctgcc ggggtccac actgcacctg cttgtcagag gcactcagtc aatctttgct 25800  
 gatgaaggat gagaggacag aggacgtgat gcttgctgct gcattgcctg cagtccctggg 25860  
 tgagatgccc gggttgactc tgctgcccgt cgggtggatg tgatgtcaga tccccggctt 25920  
 taaaatacga gggagctggg aattgagggg gcaggttggg gcagaaagca cagccccgtg 25980  
 gaagcctgga gctgaggcag tgtgggcgac ccctggagca gtgagtgctt ccttcatggc 26040  
 cttcatcgca ccctgcagtc ctcatgtagg ggatgccatc catgaattta gttttccag 26100  
 cctcctttaa aaacgcgttc atgctggggc cggggcagtg cagtggctca catctgaaat 26160  
 cccaccactt tgggaggccg aggcgggtgg atcatgaggt caggagatcg agaccatcct 26220  
 ggctaacaag gtgaaacccc gtctctacta aaaatacaaa aaattagccg ggtgcgggtg 26280  
 cgggcgcctg tagtcccagc tactcgggag gctgaggcag gagaatggcg tgaaccggg 26340  
 aagcggagct tgcagtgagc cgagattgcg ccactgcagt ccgcagtccg gcctgggcga 26400  
 cagagcgaga ctccgtctca aaaaaaaaaa aaaaagtaca aaaaaaaaaa aattagtctg 26460  
 ggtgtggtat cacgcgccta taatctcact actcgagagg ctgaggcgga gaattgcttg 26520  
 aaccaggag gtagaggttg tagtgagccc gtatcgtacc actgccctcc acctgggcaa 26580  
 tagagcgaga ctctgtctca aaaagaaaaa aaaaaaaga acatttatgc caggtgtggt 26640  
 ggctcatgcc tgaaatccca gaactttgga agactgaggc aggaggatca cttgagccca 26700  
 gaaatttgag agtgtcttcc ctgggcaaca tagagagacc tcattcttac cagaaaaaaa 26760  
 aaaattagcc cggcatgggtg gcatatccct gtggtcccag ctacttaggg ggctgacgtg 26820  
 gcaggatcac ctgagtctgg aggcagaggt tgaagtgagc tgagatcatg ccactgcact 26880  
 ccagcctggg tgacagacag agaccctgtc tcaaaaaaaaa aaaaaaaaaa aagcatttac 26940  
 tatccaccat ggaaggtgag actgacctgt gagtgattgt tcaaagaaca aaaaataaac 27000  
 cccagagata agacaaaagg gtgcctccat ggggggtgtga tttaaagctg agaaattggg 27060  
 cttcttcccc ctccccctc accccgtggg ttgctaaagg agatgggaaa aaggattctt 27120  
 tttttggctg aaatatttaa cactaaatta aagccaattt taacagcact ttggttgatg 27180  
 agtgaaatta acagactggc caaaaataaa cgaacggtct gtactatgtg aaaaagaggc 27240  
 agctttggcc atgctgggac aatgtgagtt ttcagggttg ctgggaatgt ctgtgaatcg 27300  
 gaggaagggc ctagctggga ctctcaggag ccaaggccct gaggggcaac ttgcctgggc 27360



cctgccctga	ggcgttcact	gctttcttcc	tgggocagat	cacaggcccg	gaggctggac	27420
cactgggctg	gcactcttgc	cgagctgctc	cctgacttcc	tgaccatgct	cctttcagca	27480
gccttgctgc	actttagttt	ccttgaatga	aaaatgggga	tgagaatagc	tcctacctcc	27540
aaggtgaatg	gagtgaagtc	ggacaggtga	ctccctggga	ccagtgcctg	gcgcctgaca	27600
aggtccagtc	agagcccgca	ctgctgttac	tgataccctt	ggctgtacca	ggggagaact	27660
tggttgccat	tgccaggtgt	tctcccacca	ccccactac	tgtccctggt	tgatgtgtgg	27720
cggaataaaa	gctgtgcaca	ttggagcttt	tggcacatcc	tggctttcag	gtgaaaggtg	27780
cgtgtgtgtt	tgagggttta	gcctggccaa	cccagccatg	aggtcggacc	tgacctgggg	27840
gtgagtcctg	agctcggcac	ccctgagctg	tgtggctcac	ggcagcattc	attgtgtggc	27900
ttgggcccga	cccccttccc	tgctgggctg	ttgatgttta	gactggagcc	tctgtgttcg	27960
cttccaggaa	ccaacccgtg	tgcggacagg	aacggggggg	gcagccacct	gtgcttctgc	28020
acaccccacg	caaccgggtg	tggtgcccc	atcggcctgg	agctgctgag	tgacatgaag	28080
acctgcatcg	tgccctgaggc	cttcttggtc	ttcaccagca	gagccgccat	ccacaggatc	28140
tcctctgaga	ccaataacaa	cgacgtggcc	atcccgctca	cgggctcaa	ggaggcctca	28200
gccttggaact	ttgatgtgtc	caacaaccac	atctactgga	cagacgtcag	cctgaaggta	28260
gcgtgggcca	gaacgtgcac	acaggcagcc	tttatgggaa	aaccttgcc	ctgttctctg	28320
ctcaaaggct	tcagacactt	ttcttaaagc	actatcgat	ttattgtaac	gcagttcaag	28380
ctaatcaaat	atgagcaagc	ctatttaaaa	aaaaaaaaa	tgattataat	gagcaagtcc	28440
ggtagacaca	cataagggtc	tttgtgaaat	gcttgtgtga	atgtgaaata	tttgttgtcc	28500
gttgagcttg	acttcagaca	ccccaccac	tccttgtctg	gtgcccgttt	gctcagcaga	28560
ctctttcttc	atttatagt	caaagtataa	catccaggac	aaatacagga	agactttttt	28620
tttttttttt	tgagacagag	tcttactctg	ttgccaggc	tggagtaccg	tagcgtgagc	28680
tcagctcact	gcaacctccg	cctcccaggt	tcaagcgatt	cttctgcctc	agcctcctga	28740
gtagctggga	ctacagacat	gcaccaccac	accagctaa	ttttttttat	atttttagta	28800
gagacagggg	ttcatcatgt	tggccaggct	ggtcttgaac	tcctgacctc	aggggaacag	28860
acgggggttg	cctcccaaag	ggcggaaata	acaggggtga	gccaccgttc	ccggcctagg	28920
aaaacttttt	gccttctaaa	gaagagttta	gcaaactagt	ctgtgggctg	gccttctgat	28980
tctgtaaaga	aagtttgatt	ggtggctggg	tgcggtggct	cacacctgta	atcccagcac	29040
tttgggaggc	cgagggtggc	agatcacctg	aggtcgggag	ttcgagacca	gcctcaccaa	29100

cgtggagaaa ccccgctctct actaaaaata caaaaaaaaaa attaacccggg catggcgggcg 29160  
 cctgcctgta atcgagcta ctcaggaggc tgaagcagga gaattgcttg aacctgggag 29220  
 gcggagggttg tggtagctg agatggcacc attgcactcc agcctgggca acaaaagtga 29280  
 aactccgtct cagaaaaaaaa aaagtttgat tgggtgaacc aaagcgcatt tgtttatgga 29340  
 ttgtctgtgg cagcttttgt tctgccgaga tgagttgtga cagatctgta tgggctctaa 29400  
 agcctaaaac atgtgccatc cgccccctta cagaaaaagt gtgctgacct ctgttctaaa 29460  
 gtattggaca actacaatgt ttgtcattt attattctat gatttgtttt ctgctttttg 29520  
 ttgttggtgt tgttggtgag ataggggttc cctctgtcac tcaggctgga gtgcagtgg 29580  
 gtaatttcag ctcactgcag cctcgacctc ctgggctcta gtgatcctct catctcagcc 29640  
 tcctagtag ctgggactac aggacacac caccactcct ggctgatttt tttttttttt 29700  
 tttttttttt gtggagacag ggtttccgca tgttgcccag gctggtttca aactcctagg 29760  
 ctcaaacacc cacctcagcc tcccaaagtg ctgggattac aggcgtgagc caccatgccc 29820  
 agcctattct actgtttgta ttacatagct ttaaaagatt ttttatgact ttaagtcaca 29880  
 agggttcttt gtagaaaaa atatatatat aggaaagtat aaaaagaaag taaaaattgt 29940  
 ccataacctc tccagccaga gacgaccgtt gctgacacct cagcatattg cctttaagtc 30000  
 ttttttctct aagatagcat ttctcttcat cacagtcata tgctacgcag aattctgtat 30060  
 cctgattttt tcaattgaca ttacaacagg tatttgatgg cgctgtgaca aactctttgg 30120  
 cacaatcttt taaatgtatg aaatactcca ctgcacagat gtttgctttt aggcttaact 30180  
 gttcttttat tttgctgtg ctggttacag ccgggcacag tggctcatgc ctgtaatcac 30240  
 aacactttga gaggtgagg caggaggatc acttgagccc agaagtttga gaccggcctg 30300  
 ggcaacatag tgagaccca tctctacaaa aaactttttt aataagtcgg gcgtagtgg 30360  
 gcatagctgt agtcccagcc accaaggagg ctgagttggg aggattgctt gagccccagg 30420  
 aggttgatgc tgcagtgacc tgagattact ccactgtact ccaacctgag cgacagagca 30480  
 agacttgtct ggggaaaaa aaaaaaaaaa tatatatata tatatatata tatatacata 30540  
 tatacatata cgcacacaca cataatataa aaatatatat ttataaatat ataatatata 30600  
 atataaaaat atatatttat aaataaaatt tataaattat atttataagt aaatatataa 30660  
 tatataatat aaaaatatat attatataat atataataaa atatataata taaaaatata 30720  
 tatttataaa taatatataa tacatactta taagtatata tttaaaatat atgtaatgta 30780  
 tattttttta tgtatgatat ataatatata ttataaata cacatttata ttattttata 30840

taaaatatat ataaaatctc caagttgctt tttccaaaaa ggtgtcttgc tgcatttcaa	30900
acattcattt aaaaacttga atgctggtga tctggtccag aatgtgttca gtagctgctg	30960
ccagtggcca agcatctcgg gagatgtcta caaaacacgc tggttctggc ctggcgtggt	31020
ggctcacgcc tgtaatctca gcactttggg aggctgaggc aggtggatca actgaggtct	31080
ggatttcgag accagccttg ccagcttggg gaaaccccat ctctactaat aatacaaaaa	31140
aattagccag gcgtggtggc atgtgcctgt aatcccacct acttgggagg ctaaggctgg	31200
agaatcgctt gaaccacagg ggcagagggt gcagtgagcc gagatcgcac cattgcactc	31260
caggctgggc aagaagagcg aaactccgtc tcaaaaaaaaa aaaaaaagat gctggttcct	31320
aaaatgtggc ccttttctc ctcacctgt gccagaccat cagccgcgcc ttcattgaacg	31380
ggagctcggt ggagcacgtg gtggagtttg gccttgacta ccccgagggc atggccgttg	31440
actggatggg caagaacctc tactgggccc acactgggac caacagaatc gaagtggcgc	31500
ggctggacgg gcagttccgg caagtccctg tgtggaggga cttggacaac ccgaggtcgc	31560
tggccctgga tcccaccaag gggtaagtgt ttgcctgtcc cgtgcgtcct tgtgttcacc	31620
tcgatgaga cagtgcgggg gtgccaaactg ggcaagggtg caggctgtcc gtgtggccct	31680
cagtgattag agctgtactg atgtcattag ccttgatggt ggccaggact ggtagggccc	31740
tcagaggtca tggagttcct tcgtggagcg ggtgctgagg ctgtatcagg cacagtgcctg	31800
gctgctttca cctgggcccgt ctcaccgaag tgtccatgga gcctgcgtag ggtgggtatc	31860
tgtgtcgatt ttacagatgc agaaacaggc tcagagaaac cgagtgactt ccctaaggtc	31920
acatacccag ttagagcaga gctgggccag gaagtgtgtg ctcaggctcc tgaccaggtc	31980
tccttgcttt gcactcttgc caaaaccatg atccagaact gactttgagg tccccggacc	32040
tcaggctcct ccgaaatggc ctcttgaggc ctgctgagcc acagcttagg acccacctcg	32100
agaggcaa atgtctttgag ctgccaggcg tcctgggggc cctgccttgg gcacgggggt	32160
cagacaggcc ccagatgtgt ggggcgtcct tctggacttg agttttcttt tctgtgtggt	32220
ggacacagtg ctcacccctt aaagcacctg tgatgtgtgc agcagcccaa tccctgcctg	32280
tcgcctgttc tgctagggaa ggaaggaata cttcaggatg gcaggacaac agaaagaggt	32340
ccaggtttta gagcaagggc aggtcaaact tagaaaattc tggaatgagg atgtgcattt	32400
cctcttctgg atctgctaaa agaagaggga aggaggggct gctgggggag gagcccagag	32460
ccgagtttac atccgatcc cgcaaggcct cccctgccct gaggtcttgt tttgtgatgt	32520
gcttgtgtcc atcctgggtt ctgccgtgtc cccaacatcc ggccaagctt aggtggatgt	32580

tccagcacac actcaccctg tctgtgcacc tgtttttgtg tccgtaagtg ggtatttact	32640
caccttacga gtgagccact gtgggaattc agggaggtgg cgcagtgacc acccctggag	32700
ggatatgtgt gtggcagggg tcgaggggtct cgccttccc tgcttctgc gcgtggcttt	32760
ctccaggacg gggagggctg agctgaagag gtggggacag ttgcgtcccc ccgccacca	32820
ctgtcctgcg gtgagagcag actcactgag cctgcccttc tcccttgtgc cttccagcta	32880
catctactgg accgagtggg gcggcaagcc gaggatcgtg cgggccttca tggacgggac	32940
caactgcatg acgctgggtg acaaggtggg cggggccaac gacctcacca ttgactacgc	33000
tgaccagcgc ctctactgga ccgacctgga caccaacatg atcgagtcgt ccaacatgct	33060
gggtgagggc cgggctgggg ccttctggtc atggagggcg gggcagccgg gcgttgcca	33120
cctcccagcc tcgccgcacg taccctgtgg cctgcaagtt ccccaacctg gcaggagctg	33180
tggccacacc cactgactgcc cagcagcctc accctctgct gtgggagttg tccccgtcca	33240
cccctgggtg cctttgctgc agttatgtcg ggagaggctc tggtgacagc tgtttcctgt	33300
gcacctgctg ggcactaggt ccagctaat cctgtgcca ggactctaatttcacctaa	33360
cacacatggt ggttttcatt gctggggaag ctgaggcctg agcacatgac ttgccttagg	33420
tcacatagct ggtgagttca ggatccccc gagataccag ggccagcact cgatcccccac	33480
ccagccctga accccaccat gtgctgggat tgtgctggga gtgtccacac gcctgggacc	33540
ccagggtggt tgctctcatc tcctttttcc agatcatgag aatgaggctc agggaaagttt	33600
gaaaaaaacc tatcccaagt cacacagcaa caggagcagg atttgaacct agaaaagggg	33660
accgcacact ctgttctgct agagtagtta gctgtcctgg gtgatatggc aggtgacagg	33720
ggcaactgtg ctttaacaaag gaacccccat cccctgcc aagtggggag actagaaggt	33780
caggggcaga agctctgaag ggccaggtgc agtggtgac acctctaacc cagcacttt	33840
gtgaggccaa ggcgggcaga tgatttgagc ccaggagttc aagatcagcc tgggtaatgt	33900
agtgagacgc catctctaca aaaaaatttt ttaaaaatta gctgggcatg gtggttcatg	33960
cctgtagtcc aagctacttg ggaggctcag gtgggaggat tgcttgagcc caggaggttg	34020
aggttgtggt gagctgtgat catgccactg cactccagcc tgggcaatag agtgagaccg	34080
tctccaaaaa aaaaaaaga agaagaaaaa gaagctctga ggctccaagt cccagggcac	34140
cccttggtt gagggcagac aaggaggag agggcacct gggcagccct gacttttgc	34200
ccctggcaaa gggaccttca gtgaccttg ccctaggaga gcctctgagc acgtcagcca	34260
tgtcgaaccg cttaggaagg gcagcaagaa tttggcttct gacctctgcc tctcctactc	34320

gccatctgca ctgggtgtgg ttgtgcccac tttacagatg aggaggctgg ggcacgcacc	34380
agctgaatgc cttgtcccag gtactgcgta ggcagagctg gcagttgaac cccgtgtcct	34440
ggttgtcgct ggggggtgggc tgcaccctga cttgtgaggg cagtagcaag gtttgcacgt	34500
gacttcgtga ccgtcaccca gctctgcagc acatcccgtg acccagctca tccaggccgc	34560
atgcaaacct gttgccaggg gagaaaccag tcaccgcaca gctgtgggtg cctgaaatga	34620
ttaagctcat taatcacccc ggagtgagga cagactcaga tgaaaaccag caaaagccct	34680
ggaaactcat gtgaccctgc caatgagggc ggccatgtgc attgcagcct ggccgtcact	34740
cctcggtagc tgttttggac ttaaagctc cggatgttta ctgagtgtt gattaataac	34800
atggaaggcc tggcttcatt gctgtgggag tgaaggatgc acagccaggc ctgacatgat	34860
gagaacaaga acctggagtc tcgctgcctg ggtggtaatc ctggccctgc cacttagcaa	34920
ctgtgtgact gtagccaggt cacttaattt tgctagatcc tgccctgcgt tcagtggatc	34980
ttgctgggtt tccaaggtgg ccaaacactt taaggcatte atgtggctgc taggctgcag	35040
ggttgaacct tggctcacc cgcagggcgc cgtgtgctct gtggcctggc tgtgcctttg	35100
ctgacaccgt gcccggtgtg gttcatgcag gtcaggagcg ggtcgtgatt gccgacgatc	35160
tcccgacacc gttcggctcg acgcagtaca gcgattatat ctactggaca gactggaatc	35220
tgacacagcat tgagcggggc gacaagacta gcggccggaa ccgcaccctc atccagggcc	35280
acctggactt cgtgatggac atcctgggtg tccactctc ccgccaggat ggccctcaatg	35340
actgtatgca caacaacggg cagtgtgggc agctgtgcct tgccatcccc ggccggccacc	35400
gctgcggctg cgccctcacac tacaccctgg accccagcag ccgcaactgc agccgtaagt	35460
gcctcatggt ccccccgcacc tccactcctc gttagatcag gctgggttctg ggagctgacg	35520
ctgaaaggag cttctcatct ggggttcctg ggtgtacata gatggttggg taggttgtgc	35580
actgcacaag ctgcatgatg ctacctgggg gtccagggtc aggtcggatg gacttggtgc	35640
ttcatcagga catagataaa tggccaaaac tcctcagctg gaaggtcctg ggcaggatct	35700
ttgggtgtga aaaccagtca caggggaagg gtgcttgctc atactgccag cacagtgtc	35760
agtgccttcc atagcgtcg tttactcctc aagcctggag ggtggggagt agcatggtcc	35820
catttcacgt acaaggaacc cgatgcacag agaggtgtgg caaccatcc aaggccatac	35880
aactgggggtg gggttagacc ggggtgactg tggcaggctg gctcaagagt ccctgctcct	35940
gaacccttgc caggcagcct ggcacagct cggggaattt ttgccctgac ccttggaagc	36000
aagtgggcct ctttgttctc atgtcagtga tgagaagagt gactttccta tggccctct	36060

ggagtacagg	tgtttcctgt	tggcgggctc	ttcccccatg	acatcagcag	cgagctgggt	36120
atgattccct	acgcagaact	tgatagttta	taaagctctt	tgtcatccag	gccccgttgg	36180
agtctcacgc	agacctggtc	gcaggcgggg	ctgggtcttc	ctgtcccagc	tgcattggatg	36240
gggaacttga	ggcttgcaaa	ggttaagggg	ctgttcgagg	cccacgctgg	caggagatgg	36300
gcctgggcca	gagtctggga	cttcccatgc	ctgggctgtc	tttggctctg	ttgctcacca	36360
tcctcccttg	gggccatgac	cttagagagc	caaatggagg	tgcaggtaac	ccacggcaag	36420
gaggggttgc	catgactcag	agtccccgtc	ctgtggcccg	cagtacctgg	tgcaacgact	36480
tggatttcag	accagccact	gtagcccgtc	gacgggtgcg	tcgaagtgcc	acagcttctg	36540
aagccaggca	ggactcaggc	caggagactc	tgtagctgtg	tgagaggagg	aggccaacgg	36600
atgttctggg	tctgctagag	agctgggtct	tcggatcctg	gtaccagtgc	actgagagga	36660
ggcccagctt	gattctgggg	ctgccttgtg	gtggcatgtg	ctgctcactg	acaccctcga	36720
ggagtgtctt	ctctcgggct	tgttgactgt	gcccggtttt	ccgcagttca	ctggtgcaca	36780
cataggcaca	tagcaaaccg	cacacacagt	cgtgggtatg	agtttcacta	cattccacca	36840
ccagtgttca	ctaccattac	ctgccttccg	tcttaagtgt	tcattcattta	aaaataaatt	36900
tattgggctg	gacgcgggtg	ctcatgactg	ttatcccagc	actttgggag	gctgaggcgg	36960
gcagatcacc	tgaggtcagg	agttcaagac	cagcctggcc	aatatggtga	aactccatct	37020
ctactaaaaa	tacaaaatta	gctgggcatg	gtggggcatg	cctataatcc	cagctactca	37080
ggaggctgag	gcaggagaat	ggcgtgaacc	cgagaggcag	agcttacagt	gagcccagat	37140
agcaccactg	cagtccagcg	tgggcaacag	tgcgagactc	catctcaaaa	aaaaataaaa	37200
taaataaaaag	aaaaataaat	ttatgatcta	tttcaaaaat	aacacatgta	ctttgaaaca	37260
gcagagacac	atatgacacg	gagaatgaaa	ttccccatag	cgcaccccca	agagacagcc	37320
ctgggtcccc	cgtctttccc	gtggacctcc	agcggggcag	atgctgagcc	gcctgttgtc	37380
gagtggcatg	ctatcccgtc	ctccagctcc	tctgtggctt	acagacaccc	acctgcagcc	37440
ctgtctttgc	ctcctctagc	gcccaccacc	ttcttgctgt	tcagccagaa	atctgccatc	37500
agtcggatga	tcccggacga	ccagcacagc	ccggatctca	tcctgcccct	gcatggactg	37560
aggaacgtca	aagccatcga	ctatgaccca	ctggacaagt	tcattctactg	ggtggatggg	37620
cgccagaaca	tcaagcgagc	caaggacgac	gggacccagg	caggtgccct	gtgggaaggg	37680
tgcggggtgt	gcttcccaag	gcgctcctct	tgctggtttc	caggctgctg	ccctgtcct	37740
tagcagaggg	aggaaacaga	ggatggctct	gggtgaatga	tgacttgggc	ttcgattatg	37800

tagtcacagg	gtatgaccct	gagatgctg	gaaccccgag	actgtgatta	tatgtagaaa	37860
ctgggtttcc	cgttggttta	agtagtcag	gtggggtcag	acccacagg	acttttgtct	37920
tttcaagaaa	gaaaatggtc	gtgtgtcatg	caggggtagt	tggtagctgt	taatccagg	37980
ttatccttta	ttttgtggga	actgtacagt	catttctgct	acaatgctgt	atatgctctt	38040
ctgaaagaca	cctatgcaaa	atcgcacagt	aaaaatgaca	caactcatag	ggaaagcggg	38100
gccagggcac	agccctcaaa	atctccatca	atgacatgta	agaaaagaga	ggaacctggg	38160
aaatagcaaa	gtgccttttg	cacattaaat	ggtagctat	atcccacaat	actgtgcatt	38220
cgtaaacgtt	aatgctgcaa	taaatacggc	acttcacctt	gggaagatct	ggagttggct	38280
tatgagtgtg	gaaggggtga	gcgcagtagt	ttttgtgaaa	cactggaagg	aggattgtgg	38340
gaaatcaaat	ggaaagttct	caccccgagg	gtggagaaga	gtgggtcatg	gccccagcag	38400
tgagcccagg	gaggtcagag	acggaggtgt	gtgtgtgggt	gtgacctgc	gcagttccct	38460
gccggctgta	gttttttgca	ttcgcttaat	gtttctcgtg	gaggaaattg	tgcagtagca	38520
aatgtgaaac	cgtgctgtgc	tcaaattgtc	ctaatacatc	attgcattgg	aacagattgg	38580
ctttnttttt	tttttttttt	tttttttttt	tttgaaatgg	agtctcactc	tgtcaccagc	38640
ctggagtgca	gtggcatgat	cttggctcac	tgcaaccttt	gcctcctatg	ttcaagtgat	38700
tttcctgcct	cagcctcctg	agtaactggg	attacagggc	atgagccacc	gcggccggcc	38760
agatttgcat	ttttgaaaca	actgctaggg	tgggcgcggg	ggctcacacc	tgtaatccca	38820
gcactgtggg	aggccgaggc	aggtggatca	cctgagggtca	ggggttcgag	accagcctgg	38880
ccaacatggg	gaaaccccg	ctctactgaa	tatacaaaaa	tcagctgggt	gtggtggcgg	38940
gtgcctgtaa	tcccagctac	tcaggaggct	gaggcaggag	aattgcttga	accagggagg	39000
cagaggttgc	ggtgagccga	gatcacacca	ttgcactcca	gcctgggcaa	caagagcaaa	39060
actccatctc	aaaaaataaa	aaatagaaaa	acaagtgtg	tagcgggaagt	gagcactttg	39120
cggagtcagg	cttgtgtggc	ctgttccaca	aatgatgtgc	tcacgggtgg	ctcaggccca	39180
cctggagtct	gcagcatggg	gcacaacagg	ttcattagt	tagaattcca	ggacaggcct	39240
ggctcctaag	cagccttctt	ttacaaaaac	tgagagccc	gcctgtatcg	tagcactttg	39300
ggaggccgaa	gtgggtggat	cacgaggtca	ggagttcaag	accagcctgg	ccaacatggg	39360
gaaaccccat	ctctactaaa	tatacgaaaa	ttagctgggt	gtggtggcac	gcgcctgtag	39420
tcccagctac	tcgggaggct	gaggcagaat	tgcttgaacc	tgaggaggtg	aggttgcagg	39480
gatctgagac	catgtcattg	cactccagcc	tgggcaacag	agcgagacgc	catctcaaaa	39540

aaaaaaaacc tacagagcca cacggcctct ttctccaccg agtggttggtg tgggagcttg 39600  
 tgttattgtg gtgaaatctt ggtactttct tgaggcagag agaggctgag cgcctggaga 39660  
 gactttcaca tgggtcgcca tgtccgccgt cggtttcgct gttgtgctcc ccatctgaag 39720  
 gctggtgccc tccagacagg ctggacgccc cttccacca gatccttctt cccgcagcag 39780  
 tttctagtta cgttggtactg tgaggctctgt gtccttggtt gatggcaaaa gtcagccgaa 39840  
 ttgaaattca gagccatgcc tggctccctg gagcttctct cctgggcagc tgtgatcatt 39900  
 gcctctgctg tgggtgtgggt ggtggaaatg gattcctttc atcttgcttg ctacaggtga 39960  
 ctgtcacgtg gagtcctttg gagagaggga cgtgttaatt gatggatgtg gctcccatgc 40020  
 tgagaaagct cctgggcgta cattgcctta gagtttcatt ggagctgctt tcttttatgg 40080  
 tgtctgctag gcagaagtga tgaagacttg gaagaaaacc cagaagggtt tccacttaat 40140  
 ttggaaaatg tgcttttccc ctctgtgtc ttttgctaag gtccagcctc ctgcagcctc 40200  
 cccgctctgt ggactctggc tttgattctt tattaggagt cccctgctc ccccaaaaga 40260  
 tgggtgtctaa attatcatcc aattggccga ggttttggtt tctattaatt gtttttattt 40320  
 tttattgtgg taaatttata taacataaaa tttgccattt taattgtttt gttattgttg 40380  
 tttttgagac aggggtctcac cccagtgcct aggctggagt gcagtgggtc gatcatggct 40440  
 cactgcagcc tcagcctcca gggtccagt gatcctctca cctcagcctc tctagtagcc 40500  
 gggactacag gcatacacta ccacatctgg ctgatttttt gtattttttt tttattgtag 40560  
 agaccgcgta tggtgcccag gctggtctca actcctggac tcaagccatc ctcccacctc 40620  
 accctcccaa agtgctggga ttacaggcat gagccacaac acccagccat tttaattttt 40680  
 tttttttttt ttgagatgga gtctcactct atcgcccagg ctggagtgca gtggcgtggg 40740  
 atcaactcac tgcaacctct gcctcccagg ttcaagcgac tctcctgcct cagcctcctc 40800  
 ccgagtagct gggattacag gtgcccata ctatgcctgg ctaatttttg tatttttttag 40860  
 cagagacggg gtttcacat gttggccagg ctggtcttga actcctaacc tggatgatccg 40920  
 ccgcctcgg cctcccaaaa tgctgagatt acagggtgtga gccaccgtgc ccggcctttt 40980  
 tttgtttttg agacagggtc ttgcctgtc acccagactg gaggatgca gtgggctctt 41040  
 ggctcactgc agcctccgcc tcccaggctc aagttgtgca cctccacacc tggctaactg 41100  
 tattttatgt agagacagat ttcacatgt tgcccaggct gggcttgaaa tggactcaag 41160  
 cagtccacc accctcagct cccaaagtgc tgagattaca ggcgcgagcc accgcaccca 41220  
 gccatttta cctattctgc agttgacagt tcagtggcat tcagtcagtt cacgaggtaa 41280



ccatcactgc cattcatctc cagactactt caccttctcg gcagatgtcc gaaactgtcc	41340
gcattgaaca cactcctcat ctccctctga cagccaccat tctactttgt atctctctct	41400
gccttctcta ggtacctcat gtaagtggaa ttataccaat atttgccctt gtgtgactgg	41460
cttctttcat gtgacatggg gtcctcaagg ttcactctgt ttatagcctg tgtcagaatt	41520
tccttcctta aagcctgaat aataaccctg tgtaaaggct gggcgcggtg gctcacaccc	41580
tctaatacca gcattttggg agtccgaggt gggcagatca cttgaggtca ggagtttgag	41640
accagcctgg ccaacatagt gaaaccctgg ctctactaaa agtacaaaat tagctgggtg	41700
tggtggcgcg cacctgtaat cccagttact caggaggctg aggcaggaga atcgcttgta	41760
cccgggaggc agaggttgca atgaaccaag attgtgctc tgcagtccag cctgggtaac	41820
agagtgaagc ttctgtctc aaaaaaaaaa aaaatcatcg gatggatgga cggaccactt	41880
cttggtattt atccatccac ggggtgctagg tttcttccac ctttggttgt cgtgaataag	41940
gccactatga acatttcctt ccgtggtgaa ggttttgtac tagtgaggaa aaggcgtgtt	42000
tgtggtgttg cataggatc tggttaagaaa gtttgcacta accataagta tttgtactac	42060
attaaaaatga aagctcaggg gccggggcgcg gtggctcacg cctgtaatcc cagcactttg	42120
ggaggccagg gcggggcgat catgaggtca ggagatcaag accatcctgg ccaacatggg	42180
gaaacccctg ctctactaaa aataccaaaa aactagccag gtgtggtggc gggcacctgt	42240
agtcccagct acttgggagg ctgaggcagg agaatggcgt gaacccggga ggcggagctt	42300
gcggtgagcc gagatcgctt cactgcactc gagcctgggc aacagagcaa gactccgtct	42360
cacgcaaac tctgtctcac gcaagactcc gtctcaaaaa aaaaaagagt tcagggttta	42420
tgaaactggc cagccgcgta aagtttgctg tgttgttttt gtgcccggga ggagtgtggc	42480
cagggtgtca cgtcacacag tacacgttcc tcagatgggt gttctccaga ctgctgtccc	42540
aaagtctgtt tttgcatctg gttccacag accaccctc cacggtgagc ctgattttgg	42600
ccagggtagc tggaatcttg cttgtcttcc agcccggcag ctgtaccagt ccagggtcca	42660
cagctagtgg cttttaggaa ggaatttggt cagttggctt tgacacatgg ccccctaggg	42720
tccacagctc tgtagtgatg tggatgttgt tatctacaaa gacacatgat cttctgtgtc	42780
cagatgaaag tgatgatgtc tttgcagctg ccagcaagg ctgtgtgtgt gtgtgtgtgt	42840
gtgtgtgtgt gtgtgtgtgg tgtgtgtgtg gtgtgtgtgt gtgtatgggg gagggaggca	42900
ccctttccat ctgggggtgt gtgtgtgtgg ggtgtgtgtg tgtgtgtgct cgtgtgtgtg	42960
gtgtgtgtgt tgtgtgtgtg tatgggggag gcacccttcc catctgggtc caagagactg	43020

ggcctgggga agacgtttct ttttatctac ttagagactt tgttttatth gtattttttt	43080
gagacaggggt ctcactctgt caccaggtt ggggtatggt gatatgagca tagctcactg	43140
cagcctcggc ctcccaggtt gaagcgatcc tcccacctca gccttctgaa tagctgggac	43200
tgtaggcgtg cgtcaccata ctgagctatt gttttttttg tttgggtggt ttaatttttt	43260
ttgatacaga tggagtcttg ctatgttgcc cagactagtc tcaaactcct gaactcaagt	43320
gattctccca cctcagtttc ccgacattct gggatcacag gtgtgagcca ctgctgtctc	43380
cctgttttat taactgctga aagacctaga taaagaaagt ctgaaaagac ttactatcag	43440
agcaccatcc taagatgatt ccctctgact caatggagag ggaggggagc ttttccttca	43500
ggcctgggtg gcaggagccc aggtgctcca ggccccattt gccccaggcc aaatcactcg	43560
ggaacttggg tgcagctgtc ttccagggtg acccaaagga accagatccc cgcaggcagt	43620
aggcttctgg gctgtcctct cctcctacgt cagctcagta agagcccttc gaagggatgc	43680
tgtgtcggag gccccaaaag ccagagctca tccctgagat gcacaggggtg ggctgggctt	43740
aggcagcgtc cgagcatctc ctggacgggtg accccagaga gtgtggagac ggagagtcct	43800
tgagagtcac tgagagacgt ggctgccttg ccttcccaag aggggctctg agtcattccc	43860
cacactcacc tgccctacc caccctcacc tggccccag cctcacctac ccccatct	43920
gtaccgatcc ctttaccgc acctcccta cccacctca cctccctgt acctcacct	43980
ccccactca ccgccccctg caccctcacc tgtccccac cttcacctaa cccccacct	44040
cacctgccct cccctcacct ggctccttc cgttggggaa ggggttgtaa ggggcggccc	44100
ccaaactgtc tgtcctgggt cctgcagag aaaacagtac gtgagggccg cagtccaaaa	44160
gcttgagtcc tggaaagggt aggagacagg gatgtgttg gaaggggccc atggtcttg	44220
atcccttctc gactgtcaat ggggccttca tgggagcgcc agtctagtga tgcacagctg	44280
ggtgcccggc ggggtggctga ggaggcctaa agtccgaggc ggcaagagct cttccagagg	44340
ctgttgctct aatcgctctg gcatactcag gcgggcagct agttaggagc tgattggaga	44400
ggagagaccc ccacaccaat actgggattt gactttcagg cttaaactga gaagtgtggc	44460
ctctgctgtc ctgccagagc tctccagcca gtgccagggt ctctccagcc agtgcccggg	44520
ggtctccacc agtgcccggg ggtctccgcc agtgccagggt gtctccgcca gtgccagggt	44580
gtctccgcca gtgctcagga gtcttggttt ctttgtctta cagcccttg ttttgacctc	44640
tctgagccaa ggccaaaacc cagacaggca gccccagac ctcagcatcg acatctacag	44700
ccggacactg ttctggacgt gcgaggccac caataccatc aacgtccaca ggctgagcgg	44760

ggaagccatg	ggggtggtgc	tgcgtgggga	ccgcgacaag	cccagggcca	tcgtcgtcaa	44820
cgcgagcgga	gggtaggagg	ccaacgggtg	ggtgggggtg	ctgcccgtcc	aggcgtgccc	44880
gccgtgtctt	ctgccgaatg	ccagcctctc	acaggctggg	gagactttcc	accctgggga	44940
tccaatgggt	ggctttccag	ggtcccaaaa	gcaaacacag	gctctttcac	agcccccca	45000
ggaaagcaga	aagccccaag	ggctggaagg	gaagggggag	ctctgctgag	aggttacaag	45060
gcagcgtgg	ccgacgggag	ttgcagttga	taggttttgt	atcatccttg	ttaaacttga	45120
accctgtgca	gaaatccctt	ccacggcatg	ggggctgcct	gttgactcgc	tcctgttcca	45180
ccacagggag	ctcctgggct	tcttcctccc	agaggccccc	gacgctccca	cctgttggtc	45240
gtcagagctt	ctggttggtg	ggaaggcacc	caggaccttg	aggtctccag	agagaaaagc	45300
cagggaaaga	gggagaccga	aaccatgtg	acatgaaact	caggctccaa	actgagcacg	45360
ggaacgtttg	gggacaggag	cgcgatggcc	ttcctcagat	agctgggggg	ctggcatgaa	45420
gacgggagct	acagccagca	caggctcctg	gccgggagcc	cagagattga	gccctgactc	45480
tgtcacttac	tggccacgtg	accttggggc	ggtggcatag	cctcttgagg	actcagtttc	45540
ctcattggta	ggagtgcagg	ccacagtggg	gcggcctctg	cagcacacgg	ggggctcggg	45600
gggcggaagc	cccgggtcta	taaggcggct	gtgcaggagc	cagccgagct	ggtctcccaa	45660
cagccagggc	tccggggctc	ttagcagctg	tggggggcct	gcacctgttt	cccatggctg	45720
ctgtcagaaa	ttaccagaag	ccagggtggc	gagagtaatg	gacacttggt	ctctcacagt	45780
tcctgagggc	tgaagcccga	gatcgagggt	tgggcagggc	cctgcgccct	ctgaaggctc	45840
tgagggaaac	tttgggcttc	tgggtggctcc	aggcaccctt	tgacttgtgg	tcctgtcact	45900
ccagtctctc	tgtctggctg	cacatggcgt	ggcctcttct	gtaccattga	aggacacttc	45960
agttggattt	agggcctacc	ctcaccattt	gtggtcgtat	cttgatcctt	catgacattt	46020
gtaaagaccc	tgcttccaaa	taagctcaca	ttctgagggt	ctgggggtgag	cggaatttg	46080
gagagcattg	ttcaactagt	atagaatgtg	acctgtcagc	ctcgggcagc	cctgagaggc	46140
aggggctttc	cacagcccag	ctgggtgccc	tgggctccgt	gctgtccgag	gagacgccat	46200
ccccacaccc	gtccttcacc	cgcacccctc	ccgcaggtac	ctgtacttca	ccaacatgca	46260
ggaccgggca	gccaagatcg	aacgcgcagc	cctggacggc	accgagcgcg	aggtcctctt	46320
caccaccggc	ctcatccgcc	ctgtggccct	ggtgggtggac	aacacactgg	gcaagctgtt	46380
ctgggtggac	gcggaacctg	agcgcattga	gagctgtgac	ctgtcaggta	cgcccccg	46440
ggcctgcctt	aaccgcagac	accgggcctt	cattgtcagt	aatggcagca	gctgccacat	46500

tgtccgagac ctgccgtgag cccagtgccg cgccaggggc tttgtgtgta gcgtgttttg	46560
tcctcacact gacagctgta ggctgggggt ctgagtgagc cccacagggc agaggcagaa	46620
aatgagtctc agagaggggtg agcgagctgc ttggggcccc acagcaggag atggagcagg	46680
actgcagcct agcctctgcc cccagcacct gcgcaagaag ctgctctgct ctggactgtg	46740
ttaggctgcg agggctggag agaaatgaga gttgggtgctt agagaggggg cgaggtccc	46800
catggctttt cctcttatga tgaggtagat ggggtgaagg aggggccatg cttgcagggg	46860
ccagtgaccg agggccgccc ttggaactga tggccttcat cccagagcca gccaggtgg	46920
gagcagggct ttccgagggc ttgtcttggg tggcctgct tccagggact ctgctgcagc	46980
tcccaccct gtccaaagca tggaatcccc caggctcctt ggagtcctg tcaacctctg	47040
tcctcccaag ctgagtgtgg ggcaagttct ggaggtcagc actgctcagg ggggcccacg	47100
ggctgcttgc aggggccaac cgctgaccc tggaggacgc caacatcgtg cagcctctgg	47160
gcctgaccat ccttggcaag catctctact ggatcgaccg ccagcagcag atgatcgagc	47220
gtgtggagaa gaccaccggg gacaagcggg ctgcaccca gggccgtgtc gcccacctca	47280
ctggcatcca tgagtgagg gaagtcagcc tggaggagtt ctgtacgtgg gggctggcag	47340
tgggggtggc aggggtggcct ctaaaccoga cccctggagg aggctggagg ccagtgaag	47400
atcctgtgtg gcctcagcca ggcgtgggtc tctgccagat gccactgtt gccgctggg	47460
gttcagcgac atgtccgaat gtcccaggc ctctgagggt gttttctttt gccgcagaac	47520
aaatcaccac gaacagcgtt ttaagacaac accaactctt tttttttttt ttttttttga	47580
gtcaggatct tgctctgttg cccaggctgg ggtgccctgg tgcaaacaca gttcactgca	47640
gcctcgacct ctgggcttaa ttaagtgaac accttgctc agcctcccag gtagctggga	47700
ctacaggtgg gcaccaccac acctggctaa tttttttttg tagagacggg gtttcccat	47760
gttgcccagg ctggtctgca actcctgggc acaagctatc tgctgtgtg ggcctccaa	47820
agtgttagga ttataggtgt gagccactgg cctgacaaca cccacggatt gtctctcagt	47880
tctgtaaggc aaagtccagg cacagcgtgg ctcacctggg ttctctgctc agggctctac	47940
ggggccagaa tcaaggtgtc aggaacgtg ggcctcagc ggaggctctg tggagaaatt	48000
agcttccttg ctactcagc aggtagcagt tgtgggatcg aggttctgtt ttctctctgg	48060
ttattggctg gggaccactc tcagctcta gaggccccc caggctcctg ccccggtggc	48120
ctctctgct cagcagtggg ggctcctgc gtcagtcctt cccgcacctt gagtctctct	48180
gatttgcttc taaagggccc tgtgattcgg ctcagccacc ttagattag gttagcctcc	48240

cctttgatag actccaagtc ggctgattaa taaccttact cacatctgca gaatcccttc 48300  
 tgccacataa ggcatgacg ccgtgctggg gactgggggtg ggaaattacg gggtcattta 48360  
 ggattctgcc tgccactgcc ttgctgtgtc ccagggcttg ggggaggggc ctccacagct 48420  
 gggaccacag tccttcctcc cctccatggt aaccatctga ggattacttg agaccagcct 48480  
 gggcaacatg gtgagaacct atccctacaa aaaatacaaa caaaaaggga ccaggctggg 48540  
 cttgggtggc catgcctata atcccagcac tttgggagac caaggtgggc tgatcacttg 48600  
 aggttgggag ttcgagacca gcctgcccaa catagtgaat tcccgctctt actaaaaata 48660  
 caaaaattag ctgggtgtgg tggcaggcgc ctgtattccc agctactggg gaggctgagg 48720  
 tgggagaatt acttgaacct gggaggcggg agttgcagtg agccaaaatt acgccactgc 48780  
 actccagcct aggcaataga gtgagactcc gtctcaaaaa aaaaaaggg ccaggggtgg 48840  
 tagtgacaaa gagaccctat cccaaaaaaa ccgaacactg aatccttgag actgagtaag 48900  
 gacactgtga aatttttctg ggtggggcag ggaacagagc gtcttctgtc atttcttcca 48960  
 cctgggtgtg gtcagctctc cctccaagct gcctcctctt cttctcattg tccgggtgtt 49020  
 ggacacattt ggtaactgg atagaataac gcgagttccc agggacttg tccatttgct 49080  
 attttatttt attttatttt attttatttt attttatttt ttattttatt attttatttt 49140  
 tgagatggag tttcgttttt gtcgcccagg ctggagtga gtggcgcgat ctcggttcac 49200  
 tgcaacctct gcctcccagg ttcaagtgat tctcctacct cagccttcca agtaactggg 49260  
 attacaggca cccaccacca taccaggcta atttttttgt attttttagta gagacgggtt 49320  
 ttcgccattt tgcccaggct ggtcttcaac tcctagcctc aggtgatcca cgcacctcgg 49380  
 cctcccaaag tgctgggatt acaggcatga gccaccacgc ctggcaccat ttgctatttt 49440  
 aattcccatg tgtattagt tcccacggct gctgtaacaa atgaccacaa actggatggc 49500  
 ttaaagcaac agaaatggat tccccaatg tgctggagac cagaagcctg cgaccaaact 49560  
 gttgggaggg ctgtgcttcc tctgggggct ccagggagga tctatttggt ggcccttcca 49620  
 gtgctgtggg tgccagcgtt ccacacttgt ggatgcgcgc cctcaacctc tgcccatctt 49680  
 catgtgtcca tctcctttgt gtctgcgtct ttacctcttc ttcttgtctg tgttgctctt 49740  
 tataaggacg tttgtcattg ggtttagggc ccacccaaat catccgagat gacctcgtct 49800  
 tgagatcctt aacctgcaaa gacctttttt ccaaaaaaag gttatgctca cagattctag 49860  
 gccttaagac atgggtgtat ctttctgggg ggcactatcc aacctttat acaatgaaag 49920  
 acgggaagag ggccagggtg ggtagttcac gcctgtaatc tcagcacttt aggaagctga 49980

agcgggagga tcacttgagc ccaggagttt acaagtagct aggcaacatg atgagacccc 50040  
 atttctacaa aaagtaaaaa aaaaaaaaaa aaaaaaaaag ccagggtgtgg tggctcacac 50100  
 ctgtaatccc agcactttgg gaggctgagg caggcagatc acgaggtcag gagattgaga 50160  
 ccacctctggc taacacggtg aaaccccgctc tctactaaaa atacaaaaaa ttatggccgg 50220  
 gcgcagtggtc tcccgcctgt aatcccagca ctttgggagg ccgagggtggg tgaattacaa 50280  
 ggtcaagaga tcgagaccat cttgggtaac acggtgaaac cccatcaaga tcacaaggtc 50340  
 aagagatgga gaccatcctg gctaacacgg tgaaaccccg tctctactaa aaatacaaaa 50400  
 aattagccgg gcatggtagc gggcgctgt agtcccagct gctcgggagg ctgaggcagg 50460  
 agaatggcgt gaaccggga ggcggagctt gcggtgagcc gagatcgctc catgccattg 50520  
 cactccagcc tgggtgacag agtgagactc cgtctcaaaa aaaaaaaaaa aaagaaaatt 50580  
 agccaggcac agtggcaggt gcctattgtc ccagctactt gggagggctaa ggcaggagaa 50640  
 tggcatgaac ccgggaggtg gagtttgag tgagccgaga tcatgccact gcgctccagc 50700  
 ctgggcgata gagcaagact ctgtctcaaa aaaaaaagcc aggcattggtg gtgcatgcct 50760  
 gtagtcccag ctactcaaga ggctgaggca ggaggggtgt tcgaccacg gagatcaagg 50820  
 ctacagttag ccatgatgcg accactgccc tccagcctgg gtgacagagt gtgaccctgt 50880  
 ctcaaagtaa gtaaatagga ggagagacaa gtgggcagtt cagactgatg gtatgggcac 50940  
 agtagagact ggtgcagaca ggctggcctg tgatgtcaag caacttctgt aactgtttcc 51000  
 ggcattccatt tgtgtgtcaa tttccgtgtc agtaggaaga ctctgtaggc tgccaagagg 51060  
 aataagtggg aggatcctcc cagagaggcc gggcctgcag gagggccagt tctcatgagt 51120  
 tcttatttgg cccctaccct ccaggctgtg gttctgaggt gggagacaga gcctgacctc 51180  
 tgtttgtctt gttttgtctt tgcagcagcc caccatgtg cccgtgacaa tgggtggctgc 51240  
 tcccacatct gtattgcaa gggatgatggg acaccacggt gctcatgccc agtccacctc 51300  
 gtgctcctgc agaacctgct gacctgtgga ggtaggtgtg acctaggtgc tcctttgggg 51360  
 tgatggacag gtacctgatt ctctgcctgc taggctgctg cctggcatcc ttttaaaatc 51420  
 acagtccctg tggcatccag tttccaaagc tgattgtgtc tccttttgc ctcttttctt 51480  
 ttctactatg tgcattcggt gctatgaatt ttctctaaag tactgcgttt cctgcatctc 51540  
 acaaattttg ttacattttc attttcaggt agtttgaata tttttacact tctcctgaga 51600  
 tgacatcttt ggctcatgtg ttatttagaa gtgttgctta gtttctaaag agttggggct 51660  
 tttccagctg tctctctgca actgatttct aatttaatto tactgtagtc tgagagctta 51720

ttttatatga tttctgttat tttaaatgtg ttgggtgtgg tgtttttggt gttattgttt 51780  
 ttgtgtcttt ttgttttggt ttgcttcgtt tgttttgttt ttgagacagt gtcttgctct 51840  
 gtcactcagg ctggagtga atggcgcat ctcagctcac cgcaacctct gcctcccggg 51900  
 ttcaagtgat cctcttgctt cagcctcctg agtagctggg attacagggt cagccacca 51960  
 taccagcta atttttgtat ttttagtaga gacggggttt caccatgttg gtcaggctgg 52020  
 tctgaactc ctgacctgt gatccgcca cctcgccctc ccaaagtgtt gggattatag 52080  
 gcgtgagcca ctgtgcctgg ccattagggt tgttttatca cccagcatca tgcagtttat 52140  
 cttggtgaat gttctgtgta ctcttgaaaa gaatgtggat tctgctgttg ttgggtggag 52200  
 tgtccagaa acatcaatta gatccagttg gttaatagt ctcacaggt tgtctctatc 52260  
 cttccttctt gactgcctgc ttgagctgtc agttattgac aggggtgtgg agtctccaac 52320  
 tctaattgtg gatttggtta tttctcctag tagttctatc tttttctctc cttctaccct 52380  
 tgatcctctt ctccccctag ggcttcctgg tgttggtggg gggagagtgg ggtagtgaag 52440  
 aacctggact ttagggccaa agaggccagg gttcaaactc tggctctgtc acttcccagt 52500  
 tgagtgacct tggctggtgc ctgaatctct gtgagcctcc acttctctct ctgtgaaatt 52560  
 gagagcactt acctggcagg ctgtcatggg catcaagtaa cagggcactc cacctggacc 52620  
 ctgacacgtg atgcacagga atgccagctg ctatgccatg ggtgtggcag tagtaataaa 52680  
 gtgacctct gtatctcac cacagtgaag cctgtccagg gctttctctc ctatgcccc 52740  
 atgcctccag gtggccttg atcctgttg ttctgtgtc tgctcagcga cttttctccc 52800  
 gtgggagttc ctgggggttc agcttcatcc tacagacagc agcacacact ggctgtgcac 52860  
 cttttttttt tttttttttt ttttttttga gatggagtct cgcttttttc gcgcaggctg 52920  
 aagtgcagtg gtgtgatctt ggctcactgc aacctctacc tctgggttc aagtgtttt 52980  
 cctgcctcac cctcccaagt agctgggatt acaggctccc accaccacgc ccggctaatt 53040  
 tttgtatttt cagtagagat ggtgtttcac catgttgcc aggatggtct tgaactcctg 53100  
 acctcagggt atccgcccac ctcagcctcc caaagtgcag ggattacagg cgtgagccac 53160  
 cacaccgga gtgcccgttg ttttagcag ttgtcttgt tctggagag actggctcct 53220  
 gccaggagc tcggggagta gggccgagg gtgtgcctc acacctcag tttggccgta 53280  
 agcagagggg acattttgtg actgtcccc tctgagctt cccagcagct tttctccaag 53340  
 ttacagccca aaagctcagg tggatttgca acccaacggg gtctgtgcac ctcccactga 53400  
 tgcccgaact gccctggcca agaaacggg ccgtcagaac gctgcactaa ctgcagcctt 53460

gggcctccat gccagaggcc atgcccttcc atccaccacc cctggcctg ggccctggcc 53520  
 ctctggctc gggaactcca ggccccctcc tcacggatcg agagacgtgt atttaccgca 53580  
 caggtgcttg tcattctctt gtggcctctt ctccaggag atcacagaag gacagggcct 53640  
 cactgaggtc tcggacatgg accctttgat agtggcagga gccaggtgg gcaagaggcg 53700  
 gccacagtca cctcagcagt gccatcacca ccgccattca gcccttccct gagccgggcg 53760  
 cggccctggc tctggcccca gtgtcccagt tacagctcac aggagcttgt ggtgcccagc 53820  
 ggctgcttct gattgagagt cgaggctcga ggctttggga ggctgagagg ctgctcggtt 53880  
 tcacaactgc tgaggggagac ttgggctcca tctcaggtct gccccatgtc gccctcaacc 53940  
 tccagccacc ggtcctccgt gtcccccatg gccaggcacg gcttgacagc atctgtcggt 54000  
 ggctcctctc agccgtcgtg ggctgacctt ggcacgtcct cctgtggctg agcccagtgg 54060  
 ggacagctgc ttccctttat taccctagaa ctctcgtctt tgatcaggcc cctcccccta 54120  
 tgccacacag tccctgtcac tcgggtgagc ccagtagtca tggggaaggc ctgcgggttc 54180  
 caaacatcca aaggcttgcg tgcagcatga cagcttgaaa ccgatgtttt ttaccttgat 54240  
 cagatttcag cttggcgggg gctttgtcga gctttcagtg aggcctgggc cgatttccca 54300  
 gcatcccctc ctgaggccag cctctgtttc ctgtgatttt ctgcacaaag tgggaggag 54360  
 gagtcttagg aaatgggggg ccacctcgaa acctaggcct cctctggctt ctctgtgcca 54420  
 gtgccccac gctttgtgtc tgtgtcccca gccatggga ctgtgttatt ccctgagtgc 54480  
 tgccgcatgc ccagcccgca ctgaggacgt ggagccccga ggggcaggat ggcctccatg 54540  
 gtcacacgta ggaagtggcc tccacctcc gatgatcctc tccccccctc cctttcagcg 54600  
 ccttccccgg ggggtgtatc agccctcctg cctgtgcttt gtcccgtctt ctgcaggcgc 54660  
 atgggacgtg ctgacaggtc ctctgcggg ttctgtcctt gctatgcgca cgctggtcac 54720  
 cacagaggcc tggcccttct tctgtagcag tcccacaccc gcaacagggtg tggctgctga 54780  
 ccacctgctt tctgccccctc tggctctgag gagggcgcag tgggcaactca ggcgtggctg 54840  
 agcagatgtg tgttgccggg aggaggaagg actgctccag tcagggtga atttcccacc 54900  
 cgggacattt ctgctgtatt tgggtgtagc cctgctgctt aaagctctga ttcccagttg 54960  
 gcaccctttc cttctgtcat tgaaaaacat acggatgcat gtcttcttgc agtgaatgtg 55020  
 tattctccca gcctctcttc tgggttgggg ctggagggtg agcggcacac aggagccgca 55080  
 gcgatggagg atgtgcgggt gcagcaccac gtacagcagg gatgccaaac ccgcgctgag 55140  
 tccctctcaa cttctgcttt gaagcccagt cacgccattg cctgggtttt gctgggcggg 55200



gctgcatgtg atgttctcct ctgtccctcc cccagagccg cccacctgct ccccggacca	55260
gtttgcatgt gccacagggg agatcgactg tatccccggg gcttggcgct gtgacggctt	55320
tcccagagtgc gatgaccaga gcgacgagga gggctgcccc gtgtgctccg ccgcccagtt	55380
cccctgcgcg cggggtcagt gtgtggacct gcgcctgcgc tgcgacggcg aggcagactg	55440
tcaggaccgc tcagacgagg tggactgtga cggtgaggcc ctccccgtca aggctctgcc	55500
aagaccctgg ccctgccctc cgggatacga gcttggggct gcctccggcc tcacaggagt	55560
aggggctctg aaaacctttg cttgcagga gattgccaaag tctgtctttt aggcccaaca	55620
aggaaaactc tgcagttcca cccatcctgt cccaccaggt agtgtggctt gaaggcagac	55680
tgtgagggtc tatctcacct tcctgcatta ggtcaggagt ttcacagaaa cctgaggcac	55740
attcaggggt gggctgcaga ggtccatggc tcacaccctg gaaaatccgc ccccaaaaga	55800
cagtgtgtgc tccactgacc agtctgtggg atagtgtta agcctgagtg gtttctatca	55860
acatgtagaa tcaggaggtg taaagagatt tgctcaggca tcctgggccc tctctgacca	55920
gcaggatctt ctttagatc ttgacagtga aacacatctc ttctgtgccc cctgtgagtt	55980
ttctttcatt cattcattca ttcattcatt cattcattca ttcgagacag agtcttgctc	56040
tgtaaccag gctggagtgc cctgggtgtaa tctcggctca ctgcaacctc tgccctcagg	56100
gttcaatoga ttctcctgcc tcagcctccc gagtagctgg gatgacaggt gcgcaccacc	56160
atgcctggct aatttttgta ttttagtag agacaggggt tcaccatgtt ggccaggctg	56220
gtctcgaact cctgacctca ggtgatccgc ccgcctcagc ctcccaaagt gctgggatta	56280
caggcatgag ccaccgcgcc cggcctgagt ttctcttta tgaaggacct gcttggttgg	56340
ttgcctgcca catgttgtca gcaccatggg cccaggactg ctgaggagct gttgatgccc	56400
tcgctctccc agagccaccg gctctgttag ataattcaca tgcagtctgg ccactgtcct	56460
acgtcctcat tcacaaagag cagacatttc gtagaagatg agggcctggg agtaacctcc	56520
ctgcatgttt ttctataaag gcatagtggg taagtccttc cagctcattg accattggag	56580
aattttatgg aggctgtaga ctaggggctg gtaaaactaag ggcccagggg ccaaattccag	56640
cctgccacct acttttgtaa ataaagtttt cttgggtgcac agccatgccc attcattcat	56700
ttgcacaatg tctgtggctg ctttcatgcc aaaagcagga gaactgagtg gttatgctgg	56760
agacctacgg ctttcaaagc cccagacctc acgtctggcc cttgacagac agagcttccc	56820
cagccctgct gcgcctcctg gccagcatg tgctgtgtgt gtgatttcag cttgcaggag	56880
ccgtgggttag gaattgtccc tgtgttggtc cattttgcat tgctatgaag gagcacctga	56940

ggccgggtag attatgaagg aaagaggtct gtctggctca tggttctgta ggcagcacca	57000
gtatggcacc cgcactctgct cagcttctag tgaggtctca ggaagctttg actcatggtg	57060
gaagtccaag cgggagcagg tgcatacat ggtgagagag ggagcaacgg agagagagag	57120
agagagagag agagcgctc tccctcttgc cctcaccttg agaggagatg ccaggctcct	57180
ttaagtaacc agctcccatg tgaactcaca gtgagagccc atttgctact gcggagaggg	57240
caccaggcat ctgctcccat gaccctaaaca ctgcccacca ggccctacct ccaaccttgg	57300
ggtcataattt tattctgttc tatgctatgc tatgctatgc catgccatgc catgccatgc	57360
tattcctatt ctattatttg agacagaatc tcgctctgtt gccagaggtg gagtgcagtg	57420
gcatgatctt ggctcactgc aacctccacc tcccagggtc aagcgattct cctgcctcag	57480
cctcccgagt agctgggatt acaggcacac accaccacac ccgggtaatt tttgtatttt	57540
caatagagat ggggtttcac catgttggcc aggtggtct caaactcctg gcctcaagtg	57600
atccacttac ctggcctcc caaagtgcc tgattacaga tgtgagtcac tgcgcccagt	57660
gagggtcaca tttccgtga gatttgagg ggcagacgtt ggagccatct gagccccctc	57720
gtcccgtct agcttctcct ccggtgtgcc ccgcggtgct ggtggcaggc ccttacgccg	57780
gttctggctg cagctctgt tccagaagct ttcttccctg cttgggtacc agaaaatcat	57840
cccatccatt acaaggacag ggtccctta tctccattc ccagggcagg acaccggggg	57900
cagggcaggt ggggaactga gcaagttctc tgggggcagg cgtggctatg gctccctctg	57960
ggtgggcgtc tggggagggg tggaggcagc cgtcagcgcc ctggcttgc cttcctccct	58020
ggccagagac tgtggccttg tgctgctccc gtgtgggctg cctgcacctc cagtgggttg	58080
tgctccctcc cctccctcc cctcaagctc tgctgagcac cactgccttc cacagcccc	58140
actctcgga ggcgaggctc ctgctggcca ttctgtcct tggcaccac cccccacca	58200
acctggtaga gccttgggcg gggctctgta ctcttgcat ggcgtagacc tccccacagt	58260
aggcacctga cacatactc ctggggggca ggcaggaggt gcgttgaggt ctgagccctg	58320
gcagtccctc cctgcgtgg cataggctc gccacagggt catcgagggt ggggtggagac	58380
tgtactagac cactccccgc tggctctaga aagggtccca tctgtctgct ctctgtttgg	58440
agtccagacc ttggttgctg tgccctgcat ggtgggctgg ggggcacct cagcctctc	58500
tgagtgcag gcctctcctt gcagccatct gcctgccccaa ccagttccgg tgtgcgagcg	58560
gccagtgtgt cctcatcaaa cagcagtgcg actccttccc cgactgtatc gacggctccg	58620
acgagctcat gtgtgggtgag ccagcttctg gcacggggaa ggggcgtccg ggctgggttc	58680

ccccaggaac gtggagttaa ggggaggaga cgtgcctttc cagcggggct gggggctgtg 58740  
tgaggagactc aggcggctgg gaggtcctt gcgggaggca ggaagcctt tcccagggca 58800  
gcggccagga ggacagactg tgagctgtgg gctcggcggc tacagagtct gcctcagtgg 58860  
gcggggctga tgggtgtccag gtgcctgcag cagcaccca cccacgggac cttgctgagc 58920  
agcgtctgtc aggcagcaag attaccogag ggctgcagtg gtctgttcc ctggcagctt 58980  
actgtctggc tgaggaggag tgatgttcac atatgcacac atgtcatgtg cacacacatg 59040  
tacatgacaa catcccat gtcctcaa tagcatgacc tgtacagtca cggatatagg 59100  
gcctagggga taggaggcca agacagtcag ggaagacttt ccagaggcag tggctcctga 59160  
aaggctgtct gattcaggca ggaagggagc tgagttcaga taggaagtag caatgagtca 59220  
ttgtgtctgg ggacatggcc actccttcgc tgcagaggga cctgggctga gagctcctct 59280  
cttatggctg cagtcgggag agaagtctgt tggggggaga agggggcttc ctcaagggac 59340  
tcctgtgcc ctttggcacc ttcgtgccag gtcaggcttg aggcctgaag gcagtgggtg 59400  
gggccaccaa gggtcgcctc ctctgtctgg caagttccca gtctgacggg cctgtgccgt 59460  
gggccccagc tgtgggggag ctgttgatgc gcagccaggc ctgcgcgcca gagcccgac 59520  
gcttccattc cgtgacttc atcgacgcc tcaggatgc tgggcccggc ctgtgggaga 59580  
gtgaatgtgg cttttgcaa agttgagtct ggagcctgga aacttcccta tgggcagcct 59640  
tgatagtgga gtggcccaag gagcccacc agccgaccct gccctcccg tggctgggtg 59700  
gcggcaccag gggctgcctg gctttgctcg ttcaccaaca taccgggc tggccagggc 59760  
gcgtcactt ctgccaccac cgagggcct gggcgaagga gtgaatacca ggctgcctg 59820  
gcagggatgt gttgagggt gtggggagtc ggacagcggc gggggtcaga ggaggaggag 59880  
ggtgcaccgt gcaggctgaa gggccacgtt accctgaggt tggccaggct cccaggcct 59940  
agcctcccag cccccact ttctccccc cctccaccag tggcaaagcc agcccctca 60000  
gggcgcacgg tgtctgcccc caaggagggc ccattccgtt ggggttaatg ttggccacct 60060  
ctttctgttt gtctctggca gaaatacca agccgcccctc agacgacagc ccggcccaca 60120  
gcagtgccat cggggccgtc attggcatca tctctctct cttcgtcatg ggtgggtgtct 60180  
atthtgtgtg ccagcgctg gtgtgccagc gctatgcggg ggccaacggg ccttcccgc 60240  
acgagtatgt cagcgggacc ccgcacgtgc cctcaattt catagccccg ggcgggtccc 60300  
agcatggccc cttcacaggt aaggagcctg agatatggaa tgatctggag gaggcaggag 60360  
agtagtctgg gcagctttgg ggagtggagc agggatgtgc taccaggc cctcttcac 60420

atgtggcaga cattgcta at cgatcacagc attcagcctt tcccactgag cctgtgcttg	60480
gcatcagaat ccttcaacac agaggcctgc atggctgtag caaccaccc tttggcactg	60540
taggtgtgga gaaagctcct tggacttgac cttcatattc tagtaggaca tgtgctgtgt	60600
tgtccacaaa tctcatgta ccctagaaat gaatgtgggg gcggctgggc tctctccaga	60660
gctgaaggaa tcaactctgta ccatacagca gctttgtctt gagtgcagct gggatttgtg	60720
gctgagcagt tacaattcct acgtggccca ggcaccagga acgcaggctg tgtttgtaga	60780
tggctgggca gccgcaccgc agagctgcac catgctggtt tgtatcacat gggtgaccat	60840
ggatatgtcta agaaggtgga gtccctgtga ggtctgcagg tgccccaca gctccaggcc	60900
accttgagga ttgcctctgc ctgcccagcc ctgagttccc tctcccctgt cctgtccac	60960
tgtcacccca agccggcctc attgggagcc tgttggatgg cagggtatag atgtaacctg	61020
attctctctg gggagcgggg ttatctggct tctcaagagc tcctaggagc ccacagtgg	61080
ggcaccatca cagtcgcagc agccccaga gaacgcggcc ctgtctgttc ctggcgtgct	61140
ctgtgctgcc ccgcctgggt tccctgccc agtcgcaggc cccttgagg aggtaccatg	61200
tgtctcccgt ttcacagatg agccccgggg agctcactct agtagtggcc agagaggcct	61260
gcggctcagg gagcggggca catttccaac aggacacacc gccctggtct gagtctcgtg	61320
ggtagtggga gcagaggaga gcgccctatg tctgtggggc ggcttggctg agcctggaag	61380
ccacctgacc tccccgtcc cttccctgcc aggcacgca tgcggaaagt ccatgatgag	61440
ctccgtgagc ctgatggggg gccggggcgg ggtgcccctc tacgaccgga accacgtcac	61500
aggggcctcg tccagcagct cgtccagcac gaaggccacg ctgtaccgc cggtgagggg	61560
cggggccggg gaggggcggg gcgggatggg gctgtggggc cctcccaccg tcagtgtgtg	61620
ccaccggagg cttcccgggt tcctgggggc tgtgccaccg cctctgaggc atgcttgctt	61680
tcttcccttt tcaaacctt ctgcttctt ctttaatgac attgttgatt gtggataatc	61740
tgaaaactac acaaaaatat aaagagccaa aatctcacc aaatccacct cctagagtgg	61800
ctgttgggct ccgtcagcat ccaggcggcc gtctgtgttc cgcacggccc agcccatcga	61860
tagccgcctg caccaggcct gtctgcccctc tgtgagcctc cccacagggt tcctccaca	61920
aacaccctgt tctcccacc agggctggct gcttctgga aaacagctgg atggtttgt	61980
gcatgacaga caaacacagg gtgattttcg tggctaaaat actccctgga gcttttggca	62040
gggtgagggg ctggctccag ctgagccacg ccttgagtga aatgactgtg aggagaataa	62100
actgccgctg cctccagga tcaactggggc tggctgggga gaacccccgt ttctgggagc	62160

acagtcccag gatgccaaagg cgagcttggg gccgagatgt gaactcctga gtgtaaacag	62220
cgggggctga cttgacatgc tttgtatgct tttcatttgt tectgcagct gtatgcccct	62280
aaggtgagtc cagccccctt ctgcttcctc tggggcctcg ccagtgagcc ccaccttgct	62340
ggggctgggt cctcctgccc ttctgggtat cctcacatc tggggctcttg tcttcttggt	62400
ttatttttct ttttttttg agacggagtt tcaactttgt tgcccaggct tcagtgcaat	62460
ggtgtgatct ctaggctcac cgcaacctct gcctcccagg ttcaagcagt tctcctgcct	62520
cagcctccct agtagctggg attacaggca tgtgccacca cggccagcta attttgtatt	62580
tttagtagag atggggtttc tccatgttgg tcaggctgat cttgaactcc ctacctcagg	62640
tgatccgccc accttggcct cccaaagtgc tgggattaca ggcgtgagcc accgcacctg	62700
gcctttttct tttcttttct tttctttttt ctgagacagg gtctcgtctc gtcaccagg	62760
ctggagtgca atggtgtcat catggctaac tgcagcctct accttctagg ctcaagcaat	62820
cctcccatct cagcccctaa gtagctagga ctgcacgcat gcaccccat gccagctaa	62880
tatttacatt tttttagag atgaagtttc actatattgc ccaggctggg ctccaactcc	62940
tggactogag cgatcctcct gcctcggcct ccccagggtc tgggattaca ggcgtgagcc	63000
accgtgcctg gcctggggta ttgtcttctt atggcacctg actgtgggtg gccctgggaa	63060
ggaagtagca gaagagggtt cttcttggtt tcttgacag taactgagtg ttctggaggc	63120
cccaggcct ggctttgttt agggacaaaag ggaactggta accagaagcc gagagttaa	63180
acacccactg ccttcttccc ctgctcctgc tgctgcaacc cagcttaacc agccaggagt	63240
gctaggaacc caagcagggc ccccgagcac acagcaggca gtcacgaat tctcttttcc	63300
tgttctccct tgggagctgg gaggatctta atcaggcaat aagagatggc actgagcagc	63360
cagctaattt tttaaatac tttattgttt aaccatatga ctcaccact taaaaagg	63420
tacagttcag tgggttttag tgtattcaca gatgtgtgca accctcacca cagttaattt	63480
tagaacattt tctgcccct aaaagaaact ctgcatgaag ccagctgttt ttaaattagc	63540
aaagttattt tgcaccttt aaatatatgt tcatgttaca aaattcaaaa gatacagaag	63600
agtctgcagt ccaaagagac tccgccccca tgacgccaag caggactccc tgggaggcat	63660
ggcctcctgc agtgtgtttc ttctatgtcc cccagggggt catctgtaca tatgcaagca	63720
tacaagagcg tggactttgt tttccaagcc agaagataat tgtagattta tgtgcagttg	63780
tgagaaagag cacagacca tttatcctct gcctggtttc cccagtgct gcctgccatc	63840
ttgcatgact tccattccta tcataagcaa gacactgata acgattcttt caccttattc	63900

agattgacat aagtgttttt tgtttgttct tgagacaaac ttcctctgtc acccagtggg	63960
agtgcagtgg cacaatcaca gctcactgca gcctcaaact cctgggctca agegattctc	64020
ctgcctcagt cccctcaagt agctcagatg gcaggtgtgc accatcatgc caggctaatt	64080
tttaaatttt ttgtggaggt gaggcctcac taaatttctt gggctagtct tgaactcctg	64140
agctaaagtg atcctcctgc ctcagcctcc caaagtggta ggattacagg catgagccac	64200
tgcgcctggg ctgacatatg tgttttcgta agcccgaaag atagcatctg aagagtcaac	64260
attgagcctt gccttttgct gctaatagat tataaaagct gctgttctga gcatttcgga	64320
ggctcccagc tgccgtgtgc accctgccta gagctctacc gtaacccatc tccgggagga	64380
ggtgctattg ttttctcat tttgcaacaa ggaggctgaa gaactgagca tgaaccactg	64440
gcctgggtcg ttcggttggt aggcagtggg gccaggccat ccaactcaca accaccttct	64500
actctgettc ccccgacccc tgaagtttgt tctgttttga ggacacagcc gtcacattct	64560
tggtggctga acagcactcc ttgtcaggtg tggtcgggcc ccactggag ggcacatg	64620
tcctctctcc tgctgcggtt gaaccttggc tgtttcaacc actcctgcca agtggccctc	64680
tgaaagggac agtccatctt ttctcagcag agggccacac tggcaaaacg gtccctggca	64740
ccctttctct ccacctgtct aatatagagt aaaaatggta tcatgttaag atcttcattt	64800
atatttattt tatcatgaat gatgtaagca tcattttgtg tgtttaagaa cctttgggcc	64860
cagcgtgatg gcttgcagct gtaatctcag cacttttaga ggctgagatg agcggatcac	64920
ttgaggccgg gagtttgaga ccagcctggc caacatggag aaaccccgct tctagtaaaa	64980
atttaaaaat tagccgggta tggatgatccc agctacttgg gagtctgaag catgagaatt	65040
gcttgaacat gggaggcgga ggttgcagtg agecgagatc gcgccattgc actccagcct	65100
gggagacaga gcgagactct gtctcacaaa aaaaaaaaaa aaagaaaaga aaagaaatta	65160
tcaatctcct cttttatggc atatatatat atatatatat atatatatat ttatttccct	65220
ttcttggtta tgttcataaa ggctcccct gctctgatca taaaaaaca cttattttca	65280
cactctctct cttttttttt tgagacagag ttttgctcct gttgccagg ctggagtga	65340
gtggcgcaat ctcagctcac tgtaacctcc gcctcccggt ttggagtgat tctcctgcct	65400
taccttcccg agtagctggg attataggca tgcaccacca tgctggcta attttgtact	65460
tttagtagag acgggggttt ctccatgttg gtcaggctgg tctcgaactc gcgacctcag	65520
gtgateccac cactcgggc tcccaaagt ctgggattac agacgtgagc caccatgccc	65580
agccacact ctctttctta acgtcctcct ctttctgttt tacgttcaca tctttaattc	65640

ttctgggatg taattagatt tgatgagcaa ggtgggcatc cagcttgttt cttggctgat	65700
ggcttatggg tggcgtgaat tagtcggggg ctatcaggag gcagaaactc tatgagaatt	65760
tgaacagaga aagttccgtc tacaggctta ttaccaggga ctggaatagc agaaattgaa	65820
cagtgagatg tacagagaac tctaagaatg caggaatagg ccaggcatgg tggctcacac	65880
ctgtcatccc agcacttttg gagaccaagg cgggtggatc acctgaggtc aggagtccga	65940
gaccagcctg gccaacatag tgaaacccca tctctactaa aaatacaaaa aaattagctg	66000
ggtgtggtgg cgcattgctg taatcccagc ttctcgggag tctgaggctg gagaatcact	66060
tgaacctggg aggcagaggt tgtagtgagc cgagatcatg ccattgtact ccagcctggg	66120
caacaagagc gagactcagt caaaacaaca acaacgcagg aatagcagat gagccgaggt	66180
ggggcctccc cagccccac cccccacccc gcacctggg ccgagatcca gtcctctttg	66240
aatagggcct gggcgtggtt caccggacat ctgagacatt gccgaggcgc tgcactggtg	66300
gatcttgcca gaagtctgcc cagtgcagat ttgggcagaa tctcaaactg ccttgggatg	66360
taggagagaa accaggcctg gtcaagttca tgggaagagg tggaaacaga ccccataggc	66420
tggggcttgg gcagctgtag gaagccctct ctgctgcctc cctgcctgct ctctgctttg	66480
aagcatcttc cccagtgcc ccagtctcat gccctctcaa cgttggggtc aaatcctgag	66540
gaatacccag actggctctc tgggccaaag aggaccctct ccagaaagag cagggccag	66600
tgcggcttcc taaaggcag gggaagggcc tggccactcc ccagaggcta ctcaccagcc	66660
atcaggatag cccaggaag caggccttct cgagccatt ttattacttt attttattat	66720
tttatttaat tttaaattta ttttttgaga cagagtctca ctctgttgcc caggctggag	66780
tgcagtgggt cgatctcaac ccaactgcagc ctctgcctcc agggttcaag ggattctccc	66840
acctcagcct cccaagtagc tgggattaca ggtgcccgc accacaccg gctaattttc	66900
atatttttag tagagacgag gtttcacat gttggccagg ctggtctcga actcctgacc	66960
tcaagtgatc cgccgcctc ggcctccaa agtgctaggt caagccatt ttaaagttga	67020
agaaactgag gctgaggtaa attccctccc cagggatcct gctgcagcca gaagggtgta	67080
aaacaggact tcaccgggt ctgtctggcg tgaaaggcag tgttcttgta ccaccctagg	67140
gggcctgaga gaactgagtc cctcgggcat aactgacagt tctgttccca ttattccgca	67200
ggggctcgga tctggctgta tgctttccag gatggccttg gagaccaca taagccctac	67260
accctttggg aagctgcatg ttgggttggg gtgcgctcag tggcacttgt ggaagggtgca	67320
gacctgtgtg ggtgtgtggg cccagggcc ctggctccct cctccctttg tagggctggt	67380

tgtgtgctgc ctggacctgg ggggcacgtt cacgtggtga atttgtctat ttactatccc	67440
cgctttgggg ctggtgccag cacaggccct tgtgaagggg gtgcctttgt ctggagtggg	67500
actgtggccc ctccctcagc gtggtgactt ctgtgtcagg gcttcagcag ggacgcagag	67560
cccctgagtg ttcggaacaa gggcgtcatt gcaggagtta gactgtgtgt gatggagggg	67620
ggagggggcag gaggaaaggt cagaaggaga gttcctggga aggtccctga ggagcctggt	67680
gaggtgctaa ctggtgtgga ggacactcag ggcctgtggg gacatctcct actgctgggg	67740
gccagccaca aagggaactg gccgaagtcc tgtccccgcc ttcacagccc agcatctggt	67800
cacaaggcag gtacttgga gggcgcgggc acctgggcca aaagtgcctg ggttcccttt	67860
gcctttcact gagatgacct tcggggcagg tggtgctgc ctccccctct gtccccaggt	67920
tttgccaact ggccagagga aggggtcctg ggaagcaggg gggccagaag ccctctctgc	67980
aaggaaagcc cgaggggtgt gggaggaagg aaggaatgcc caggctggcg aggctctaag	68040
tcaccctggc ttggtctctc tcagatcctg aaccgcgcgc cctccccggc cacggacccc	68100
tcctgtaca acatggacat gttctactct tcaaacattc cggccactgc gagaccgtac	68160
aggtaggaca tccctgcag ccctccatgg ccattgggtt cccgccagcc cgtggtggag	68220
gggcctaate cccatgccac tgatgagggg aggtattctg ggtgctagtg ggcagggtgc	68280
gggccagcc ctgcctcct ctgctctgcc aaccacacta ggctgcctcc ccagacaagc	68340
tcagcgggca ctgcatgttg ggttcagaaa tcagcagaac tccacgttct gagctgctct	68400
tcaagttgct cctatggggg ttacttttaa gctgggaaat ggctgtggcg tcgaggggcc	68460
gggggcttgg gctccaaact ctgactgtgt gtttgagtcc ggctgtggaa acctagccat	68520
tgagatgcc cctcttggtg gctctgtcct cttaggatgg gacaagtctg tgaaggctgc	68580
tgcagcacc accgtagacc cctaategtg tgacgtcacc aggatggtcc gggctgctca	68640
cttgccacag tggcctgttt gagccccgga agccaacggg gctgctcagc tggacaccag	68700
ccccccgagc tgcccatgtt ggggtcacag gccccacctc cctggttggg gaggggcaac	68760
tgagagtgtg gagaggtggg acccaggtgt gctggtctcc gcaggggctg gatcagagcc	68820
tgggatgggc agggtgagcc tcctgacctt taaccagtg gtgtcaggca acgtggccca	68880
cccgccagcc gcaccaggcc ccacccccgc aggtgaaggg gtgggatagg ctgggcctgg	68940
gccaggacac ctctggacca cgcattcctc attgcttggg tccttgagc agcagggcct	69000
cccagtggtg gtgccgcctg ccacctagt ggcatttcca cgaactccca ggccctggctg	69060
gggagccgga actgcagcct ccatttccac cccactccgg gtcgggccac ctccctgatg	69120



cctcagtatt atatcaaact gtcacagtct gtcccacagc cttacagacc actgtctcca 69180  
 gaatgggtcac atccacactg ggcagcccag tctcgctagt tcctcgctcc acctcctgcc 69240  
 tttgctcatg cccgtcctgc tctgggcccc ccgcggacac atcttcccc cgcccgccgt 69300  
 ctgacctcac agcagctggg cccaagagg agtatcctgt cctgctgcac ttttctcaac 69360  
 acccggtggt ggctgcacct tcccacccat tgcaggcccc tctgtgacag gacgggggct 69420  
 cctaaacaca ccacagtcc gagtctgaac tcacacagtg ggatgcggcg tttctgggcc 69480  
 acagttgggt gcaggtagcc tctgggagga tgggaggtca ggagccatct tgcgagtcag 69540  
 gttgcttgaa ctcaggatgg aagtgttccg ggccattgg ttgctgtatt agcctgttct 69600  
 cacgtgcta ataaagacat acccaagact gggtaattgt aaaggaaaga ggtttaacgg 69660  
 actcacagtt ccacctgcct ggggtggcct cacaatcatg gtagaagaca aggaggagca 69720  
 agtcacatct tacatggctt cagggaaacag acagcatgag aaccaagcga aaggggtttc 69780  
 cccttgtaaa accatcaagt ctagtgagat ttattcacta ccacgagaac agtatggggg 69840  
 gaaccacccc catgattcaa tcatctccca ctgggtccct cccacagcac gtgggaatta 69900  
 tgggagtaca attcaagatg agatttgggt ggggacacag ccaaacccta tcggttgcca 69960  
 acatttacag taacagtgtt aggtgaacag ttgtccagtc tcctgttttg tcggacactg 70020  
 tttctagcac cttccaggca gaatctcatg tacccttcac tttcgaaatg ggtactatct 70080  
 catccccact tttatcaatg agaaactaaa gctcgaagag gtcaagtaag ttcttgcca 70140  
 aggtcagcta gcaggtctta gaggcctcgt tctccttaga ggcagccttg ccagggccca 70200  
 ggcttggcag gctgcagggc aggtgcgggc atgccatgg tagaggtggg accattgagg 70260  
 ctcagagagg gtaagtgatg agccctggcg acacagcggg gtgggtccag agtccggcct 70320  
 gcatcttctg gagctggcca gtggacaggc ctttcccggt cacagccccg gggctgctgt 70380  
 gccaccagg gcggatgtgc ctaccgaatc cactcctct gtgtgtgtcc ctttcaggcc 70440  
 ctacatcatt cgaggaatgg cgcgcccgac gacgcctgc agcaccgacg tgtgtgacag 70500  
 cgactacagc gccagccgct ggaaggccag caagtactac ctggatttga actcggactc 70560  
 agaccctat ccacccccac ccacgcccc cagccagtac ctgtcggcgg aggacagctg 70620  
 cccgccctcg cccgccaccg agaggagcta cttccatctc tcccccccc ctccgtcccc 70680  
 ctgcacggac tcatcctgac ctggccggg cactctggc ttctctgtgc ccctgtaaat 70740  
 agtttttaaat atgaacaaag aaaaaatat attttatgat ttaaaaaata aatataattg 70800  
 ggattttaaa aacatgagaa atgtgaactg tgatgggggtg ggcagggctg ggagaacttt 70860

gtacagtgga gaaatattta taaacttaat tttgtaaaac agaactgcca ttcttttgtg 70920  
 ccctgtgtgc atttgagttg tgtgtccccc tggaggggaat gccgaccccc ggaccaccat 70980  
 gagagtccctc ctgcaccccg gcgtccctct gtccggctcc tgcaggggaag ggctggggcc 71040  
 ttgggcagag gtggatatct cccctgggat gcatccctga gctgcaggcc gggccggctt 71100  
 tatgtgcgtg tggcctgtgc cgtcagaaag ggccctgggc ttcacacgc tgttgctgtt 71160  
 cgtcttctc agattcttag tctttttttt tttttttttt ttttgagacg gagtctttct 71220  
 ctgtcatcca ggctggagtg cagtgggtaca atctcagctc actgcaagct ccgactccca 71280  
 gggtcaagtg agtctcctgc ctcagcctcc cgagtagctg ggactacagg tgcgcgccac 71340  
 cacaccgcc cagctaattt ttgtattttt agtagagatg gggtttcacc atgttggcc 71400  
 ggatgatctc gatctcttga cctcgtgatc cggccacctc ggctcccaa agtgctggga 71460  
 ttataggcat gagccactgt acccagctga ctcttagtca cttttaagaa ggggactgtg 71520  
 ctttcatttt tcaactgggcc ctgcagaata tatgcctggg ctctgggctc ttctgaacct 71580  
 gtgttggtt ccatctgacc tctctgtgcc agcccaaggc tgctgctctt cctgagggca 71640  
 aggagcccca tgactgcgtg ttgactcgtt ggatggggct gctgagccca ctctgccaca 71700  
 ccacgtgccc ctggcaggga gggaatccct gggtcctcac aggaacagtc agcaagccac 71760  
 acctgacgcc tgctgtgggc ccatccctgc ggtgctggag aagacagaca aggctggtc 71820  
 actgcctctg caggggtcccc agtccgtgga aggagacagt aatctaggca ttttcggtg 71880  
 ggaagctgag ctgttctcgt gtccctgaagg ccaggcggga acagccgtct tcagagggaa 71940  
 gggagaaaat gcacatcgca tcagtggaga agggcctgac ttccctcagc atggtggagg 72000  
 gaggtcagaa aacagtcaag cttgagtatt ctatagtgtc acctaaata 72049

<210> 10

<211> 8705

<212> DNA

<213> Homo sapiens

<400> 10

ggactcaggg gcagcaggga ggtacacca tggtagtggt gcggaccata gggggtaatg 60  
 agaggggtgaa tcgatggaac ctgggggaca caatcgaagt gggtccagag tcgggctgta 120

ctaattaaag agacggggca gtggacaggc attttcagtt gactgcccag ggagtgttct 180  
 gccaacacagg gaggatatgc gtacagaatc atactcgatc agcatgagtc caattcagac 240  
 cgtacatcag tggagatatg ggtccccga tgactccgtg gaacactgat gtttgtgaca 300  
 ggggagtaca gcaccagcca tcagcaggcc agtaaatcat accggcctgc gaaattggac 360  
 tcagacccgg atccaccctg accgacgtcc caagccccca cccccaccc cccaccatgg 420  
 gccgagatcc agtcctcttt gaatagggcc tggccgtggt tcacgggaca tctgagacat 480  
 tgccgaggcg ctgcattggt ggatcttgcc agaagtttgc ccagtgcaga tttgggcaga 540  
 atctcaaact gccttgggat gtaggagaga aaccaggcct ggtcaagttc atgggaagag 600  
 gtggaaacag accccatagg ctggggcctg ggcagctgta ggaagccctc tctgctgcct 660  
 ccctgcctgc tctctgcttt gaagcatctt cccagtgcc cccagtctca tgccctctca 720  
 acgttgggggt caaatcctga ggaataccca gactggctct ctggggccaa gaggaccctc 780  
 tccagaaaga gcagggccca gtgcggcttc cttaaaggga ggggaagggc ctggccactc 840  
 cccagaggct actcaccagc catcaggata gccccaggaa gcaggccttc tcgagcccat 900  
 tttattactt tattttatta ttttatttaa ttttaaattt attttttgag acagagtctc 960  
 actctgttgc ccaggctgga gtgcagtggt gcgatctcaa cccactgcag cctctgcctc 1020  
 cagggttcaa gggattctcc cacctcagcc tcccaagtag ctgggattac aggtgcccgc 1080  
 caccacaccc ggctaatttt catattttta gtagagatga ggtttcacca tgttggccag 1140  
 gctggtctcg aactcctgac ctcaagtgat ccgcccgcct cggcctccca aagtgctagg 1200  
 tcaagcccat tttaaagttg aagaaactga ggctgaggta aattccctcc ccagggatcc 1260  
 tgctgcagcc agaagtggt aaaacaggac ttcaccggg tctgtctggc gtgaaaggca 1320  
 gtgttcttgt accaccctag ggggcctgag agaactgagt ccctcgggca taactgacag 1380  
 ttctgttccc attattccgc aggggctcgg atctggctgt atgctttcca ggatggcctt 1440  
 ggagaccac ataagcccta caccctttgg gaagctgcat gttgggttgg ggtgccgtca 1500  
 gtggcacttg tggaagggtgc agacctgtgt ggggtgtgtg gcccagggcc cctggtcctt 1560  
 tcctcccttt gtagggctgg ttgtgtgctg cctggacctg gggggcacgt tcacgtggtg 1620  
 aatttgtcta tttactatcc ccgctttggg gctgggtgcca gcacaggccc ttgtgaaggg 1680  
 ggtgcctttg tctggagtgg gactgtggcc cctccctcag cgtggtgact tctgtgtcag 1740  
 ggcttcagca gggacgcaga gcccctgagt gttcggaaaca agggcgatcat tgcaggagtt 1800  
 agactgtgtg tgatggaggg aggaggggca ggaggaaagg tcagaaggag agttcctggg 1860

aaggtccctg	aggagcctgg	tgaggtgcta	actggtgtgg	aggacactca	gggcctgtgg	1920
ggacatctcc	tactgtctggg	ggccagccac	aaagggaaact	ggccgaagtc	ctgtccccgc	1980
cttcacagcc	cagcatctgg	tcacaaggca	ggtacttgga	agggcgcggg	cacctggggc	2040
aaaagtgcct	gggttccctt	tgccctttcac	tgagatgacc	ttcggggcag	gtggctgctg	2100
cctccccctc	tgtccccagg	ttttgccaac	tggccagagg	aaggggtcct	gggaagcagg	2160
ggggccagaa	gccctctctg	caaggaaagc	ccgaggggtg	tgggaggaag	gaaggaatgc	2220
ccaggtggc	gaggtcttaa	gtcacccctg	cttggtcttc	ctcagatcct	gaacccgccg	2280
ccctccccgg	ccacggaccc	ctccctgtac	aacatggaca	tgttctactc	ttcaaacatt	2340
ccggccactg	cgagaccgta	caggtaggac	atcccttgca	gccctccatg	gccattgggt	2400
tcccgccagc	ccgtggtgga	ggggccctaat	ccccatgcca	ctgatgaggg	gaggtattct	2460
gggtgcta	aatggcaggtgc	cgggcccagc	cctgcctccc	tctgctctgc	caaccacact	2520
aggctgcctc	cccagacaag	ctcagcgggc	actgcatgtt	gggttcagaa	atcagcagaa	2580
ctccacgttc	tgagctgctc	ttcaagttgc	tcctatgggg	gttactttta	agctgggaaa	2640
tggctgtggc	gtcgaggggc	cgggggcttg	ggctccagag	tctgactgtg	tgtttgagtc	2700
cggctgtgga	aacctagcca	ttgagatgcc	ccctcttggt	ggctctgtcc	tcttaggatg	2760
ggacaagtct	gtgaaggctg	ctgcagcacc	caccgtagac	ccctaactgt	gtgacgtcac	2820
caggatggtc	cgggctgctc	acttgccaca	gtggcctgtt	tgagcccggg	aagccaacgg	2880
ggctgctcag	ctggacacca	gccccccgag	ctgcccattg	tggggtcaca	ggccccacct	2940
ccctggttgg	ggagggggcaa	ctgagagtgt	ggagaggtgg	gacccaggtg	tgctggtctc	3000
cgcaggggct	ggatcagagc	ctgggatggg	cagggtgagc	ctcctgacct	ttaaccagtc	3060
ggtgtcaggc	aacgtggccc	accgcgcagc	cgcaccaggc	cccacccccg	caggtgaagg	3120
ggtgggatag	gctgggcctg	ggccaggaca	cctctggacc	acgcattcct	cattgcttgg	3180
gtccctggag	cagcaggggc	tcccagagtgt	ggtgccgcct	gccacctagt	ggccatttcc	3240
acgaactccc	aggcctggct	ggggagccgg	aactgcagcc	tccatttcca	ccccactccg	3300
ggtcggggcca	cctccctgat	gcctcagtat	tatatcaa	ac	tgtcacagtc	3360
ccttacagac	cactgtctcc	agaatgggtca	catccacact	gggcagccca	gtctcgctag	3420
ttcctcgctc	cacctcctgc	ctttgctcat	gcccgtcctg	ctctggggcc	accgcggaca	3480
catcttcccc	ccgcccgcgc	tctgacctca	cagcagctgg	gccccaaagag	gagtatcctg	3540
tcctgctgca	cttttctcaa	cacccggtgt	tggctgcacc	ttcccaccca	ttgcaggccc	3600

ctctgtgaca ggacgggggc tcctaaacac accacagttc cgagtctgaa ctcacacagt 3660  
 gggatgcggc gtttctgggc cacagttggg tgcaggtagc ctctgggagg atgggaggtc 3720  
 aggagccatc ttgcgagtca ggttgcttga actcaggatg gaagtgttcc gggcccatg 3780  
 gttgctgtat tagcctgttc tcacgtgct aataaagaca tacccaagac tgggtaattg 3840  
 taaaggaaag aggtttaacg gactcacagt tccacctgcc tgggggtggc tcacaatcat 3900  
 ggtagaagac aaggaggagc aagtcacatc ttacatggct tcagggaaca gacagcatga 3960  
 gaaccaagcg aaaggggttt ccccttgtaa aaccatcaag tctagtgaga ttatttact 4020  
 accacgagaa cagtatgggg ggaaccaccc ccatgattca atcatctccc actgggtccc 4080  
 tcccacagca cgtgggaatt atgggagtag aattcaagat gagatttggg tggggacaca 4140  
 gccaaacct atcggttgcc aacatttaca gtaacagtgt taggtgaaca gttgtccagt 4200  
 ctctgtttt gtcggacact gtttctagca ccttccaggc agaattctcat gtatccttca 4260  
 ctttcgaaat ggttactatt tcatccccac ttttatcaat gagaaactaa agctcgaaga 4320  
 ggtcaagtaa gttcctggcc aaggteagct agcaggctct agaggcctcg ttctccttag 4380  
 aggcagcctt gccagggccc aggccttgga ggctgcaggg cagggtcggg catgcccattg 4440  
 gtagagggtg gaccattgag gctcagagag ggtaagtgat gagccctggc gacacagcgg 4500  
 ggtgggtcca gagtccggcc tgcattctct ggagctggcc agtggacagg cctttcccgt 4560  
 tcacagcccc ggggctgctg tgcccaccag ggcggatgtg cctaccgaat cccactcctc 4620  
 tgtgtgtgtc cctttcaggc cctacatcat tcgaggaatg gcgccccga cgacgccctg 4680  
 cagcaccgac gtgtgtgaca gcgactacag cgccagccgc tggaaggcca gcaagtacta 4740  
 cctggatttg aactcggact cagacccta tccaccccca cccacgcccc acagccagta 4800  
 cctgtcggcg gaggacagct gcccgcctc gcccgcacc gagaggagct acttccatct 4860  
 cttccgccc cctccgtccc cctgcacgga ctcatcctga cctcggccgg gccactctgg 4920  
 cttctctgtg cccctgtaaa tagtttttaa tatgaacaaa gaaaaaata tattttatga 4980  
 tttaaaaaat aaatataatt gggattttta aaacatgaga aatgtgaact gtgatgggg 5040  
 gggcagggtt gggagaactt tgtacagtgg agaaatattt ataaacttaa ttttgtaaaa 5100  
 cagaactgcc attctttcgt gccctgtgtg catttgagtt gtgtgtcccc gtggagggaa 5160  
 tgccgacccc cggaccacca tgagagtcct cctgcacccg ggcgtccctc tgtccggctc 5220  
 ctgcagggaa gggctggggc cttgggcaga ggtggatatt tcccctggga tgcatccctg 5280  
 agctgcaggc cgggccggct ttatgtgcgt gtggcctgtg ccgtcagaaa gggccctggg 5340

cttcatcag ctgttctgt tctcttcct cagattctta gtcttttttt ttttttttt	5400
ttttttgaga cggagtcttt ctctgtcatc caggetggag tgcagtggta caatctcagc	5460
tcaactgcaag ctccgactcc caggttcaag tgagtctcct gcctcagcct cccgagtagc	5520
tgggactaca ggtgcgcgcc accacacccg cccagctaat ttttgatatt ttagtagaga	5580
tggggtttca ccatgttggc caggatgac tcgatctctt gacctcgtga tccgccacc	5640
tccgcctccc aaagtgttg gattatagc atgagccact gtaccagct gactcttagt	5700
cacttttaag aaggggactg tgccttcatt tttcactggg cctgcagaa tatatgcctg	5760
ggctctgggc tcttctgaac ctgtgttggc ttccatctga cctctctgtg ccagcccaag	5820
gctgctgctc ttctgaggg caaggagccc catgactgcg tgttgactcg ctggatggg	5880
ctgctgagcc cactctgcca caccacgtgc cctggcagg gagggaaatcc ctgggtcctc	5940
acaggaacag tcagcaagcc acacctgacg cctgctgtgg gccatccct gcggtgctgg	6000
agaagacaga caaggcctgg tcaactgctc tgcagggtcc ccagtccgtg gaaggagaca	6060
gtaatctagg cattttcggg ggggaagctg agctgttctc gtgtcctgaa ggccaggcgg	6120
gaacagccgt cttcagaggg aaggagaaaa atgcacatcg catcagtgga gaaggcctg	6180
acttccctca gcatggtgga gggaggctcag aaaacagtca agcttgttgc tgggtgacag	6240
tgcatttaat aatcaaaaata taggctgggt acggtggctc atgcctgtaa tcccagcact	6300
ttgggaggct gaggcagggt gatcacttga ggccaggagt ttgagaccgg cctggccaac	6360
atggcaaaac ctcaactact aaaatacaaa aactagccgg gcgtgggtgt gcacgcctgt	6420
aatcccagct acttgggagg ctgaggcagg agaattgctt gaacctggga ggcggaggct	6480
gcagtgagcc gagattgtgc cactgcactc cagcctgggc aacagagcaa gactctgtct	6540
caaaaaaaaa aaaaaaaaaa gcaatacaaa atacaaatat cactttcact aaaagaagg	6600
atggaagacc caaaacaaac agaaaacaac aaaatggcag gagtaagtcc ccacttatca	6660
ataataacat tgactgtaaa taggctaagc tctgcaatca aaagagtggg ccaggagcgg	6720
tggctcacgc ctgtaattcc aacgctttgg gaggtgagg cggatggatc atttgatgtc	6780
acgagtttta agaccagcct ggccaacaag gtgaaacccc atctgtacta aaaatacaaa	6840
aattagccag gcggtagtgg cacgcacctg taatcccagc tacttgtgag gctgaggcag	6900
gagaatcact ggaggctggg aagcggagggt tgctgtgagc caagatggag ccactgcact	6960
cccacctggg cgacagagtg agatcctgtc ttaagaaaaa aaagagtgga tgaatggatc	7020
aaaaaacaag acccaaccat ctcttgata caagaaacac actttaccta taaaaacaca	7080

ctaggccagg	tgtggtggct	cacacctgta	atcccagccc	tttgggaggc	ctgactggca	7140
gatcacctga	ggccaggagt	ttcagaccag	cttgaccgac	atggcaaaac	cccatctctc	7200
ctaaaaatac	aaaaaaacaa	aaaaaagaaa	aaggctggaa	gtagtgatgt	gtgcctgtag	7260
ccccagctac	ttgggaggct	gaggcaggag	aattgcttga	atccgggaag	tggaggttgc	7320
agtgagccag	gatggtgcca	ctgcactcca	gcctgggtga	cagagcgaga	ccctgtcata	7380
aaaaaaaaaa	gaaaagaaaa	gaaaaacgag	aaaaacaaac	acaaaattag	tagaagaaaa	7440
gaaataataa	agatcagaac	aggccaggct	catgggcaca	gtggctcaac	tcctacctgc	7500
tcaggagttt	gagaccagtc	tggccaacat	ggcaaaaccc	catctctcct	aaaaatatga	7560
aaaaaaaaaa	ataggctgga	tgtggtgatg	tgtgtgtgcc	tgtagcccca	gctacttggg	7620
aggctgaggt	gggagaatca	cttgagccca	ggaagtggag	gctgcagcga	gtcatgaatg	7680
caccctgcac	tctagctggg	taactggagt	gagattctgt	ctcaaaaaag	caaagaccag	7740
agcagaaata	aatgaaatgg	aatgaagga	aacaatgcaa	aatgatacaa	aaagtttttt	7800
cgaaaagata	aacaaaatca	acaaaccttt	agccagatta	agaaaaaaag	agagaagacc	7860
caaataaata	aaatccgaga	ttaaaaagga	gacattacca	ctgataccac	agaaattcaa	7920
aggatcatta	gaggcaacta	tgtgcaacta	tatgctaata	aactggaaaa	cctagaagaa	7980
ctgggtaaat	ttctagacac	atacaacctt	tcaagattga	accatgaaga	aatccaaaac	8040
ctgaacaggc	cgggcacggg	ggcttacgcc	tgtaatccca	gcactttgga	aggcctgaga	8100
tcaggagttc	gagaccagcc	tggccaacat	ggtgaaaccc	catctctact	gaaaaaatat	8160
aaaaattagc	cgggcgtggg	ggcgggtgcc	tctaattgtc	gccactcggg	aggctgaggc	8220
aggaaaatca	cttgaacctg	ggaggcatag	gttgcagcga	gccgaggttg	caccactgca	8280
ctccagcctt	ggcgacagag	ccagactcca	tctcaaaaaa	attaaaataa	caaaaacctg	8340
aacagaccaa	taacaagtaa	tgcgatgaaa	actgtaataa	aatgtttccc	aacaaagaaa	8400
gcccaggaac	aaatggcttc	actgctgaat	tttaccaaac	atTTTTTTTT	ttttgagacg	8460
gagtctcgct	ctgtcgccca	ggctggagtg	cagtgggtga	acctcggttc	gctggtaact	8520
tatgcctctc	aggctgcaag	tgattttcct	gcttcaggcc	ccccgagtgg	ctggaaatta	8580
gatggtactt	gtcaaacaag	gcctggctaa	atttctatat	ttccttcaag	tagaagatgt	8640
gcttccaaca	aaggttgggt	tacggctggc	ttctgaaaat	cttggatttc	aaggctcccc	8700
aaaag						8705

&lt;210&gt; 11

&lt;211&gt; 66933

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 11

tataatcaag	cgcggtccgt	ccagtcggt	gggaagattt	tcgatatgct	tcgtgatctg	60
ctcaagaacg	ttgatcttaa	agggttcgag	cctgatgtac	gtattttgct	taccaaatac	120
agcaatagta	atggctctca	gtccccgtgg	atggaggagc	aaattcggga	tgcttgggga	180
agcatggttc	taaaaaatgt	tgtacgtgaa	acggatgaag	ttggtaaagg	tcagatccgg	240
atgagaactg	tttttgaaca	ggccattgat	caacgctctt	caactgggtc	ctggagaaat	300
gctctttcta	tttgggaacc	tgtctgcaat	gaaattttcg	atcgtctgat	taaaccacgc	360
tgggagatta	gataatgaag	cgtgcgcctg	ttattccaaa	acatacgctc	aataactcaac	420
cgggttgaaga	tacttcgtta	tcgacaccag	ctgccccgat	ggtggattcg	ttaattgcgc	480
gcgtaggagt	aatggctcgc	ggtaatgcca	ttactttgcc	tgtatgtggt	cgggatgtga	540
agtttactct	tgaagtgtc	cggggtgata	gtgttgagaa	gacctctcgg	gtatggtcag	600
gtaatgaacg	tgaccaggag	ctgcttactg	aggacgcact	ggatgatctc	atcccttctt	660
ttctactgac	tggtcaacag	acaccggcgt	tcggtcgaag	agtatctggt	gtcatagaaa	720
ttgccgatgg	gagtcgccgt	cgtaaagctg	ctgcacttac	cgaaagtgat	tatcgtgttc	780
tggttggcga	gctggatgat	gagcagatgg	ctgcattatc	cagattgggt	aacgattatc	840
gccaacaacg	tgcttatgaa	cgtggtcagc	gttatgcaag	ccgattgcag	aatgaatttg	900
ctggaaatat	ttctgcgctg	gctgatgcgg	aaaatatttc	acgtaagatt	attaccgcgt	960
gtatcaacac	cgccaaattg	cctaaatcag	ttgttgcctc	tttttctcac	cccgggtgaac	1020
tatctgcccc	gtcaggatgat	gcacttcaaa	aagcctttac	agataaagag	gaattactta	1080
agcagcaggc	atctaaccct	catgagcaga	aaaaagctgg	ggtgatattt	gaagctgaag	1140
aagttatcac	tcttttaact	tctgtgctta	aaacgtcctc	tgcatcaaga	actagtttaa	1200
gctcagcaca	tcagtttgct	cctggagcga	cagtattgta	taagggcgat	aaaatgggtc	1260
ttaacctgga	caggtctcgt	gttccaactg	agtgtataga	gaaaattgag	gccattctta	1320
aggaacttga	aaagccagca	ccctgatgcg	accacgtttt	agtctacgtt	tatctgtctt	1380



tacttaatgt cctttgttac aggccagaaa gcataactgg cctgaatatt ctctctgggc	1440
ccactgttcc acttgatcgc tcggtctgat aatcagactg ggaccacggt cccactcgt	1500
tcgtcgggtct gattattagt ctgggaccac ggtccactc gtatcgtcgg tctgattatt	1560
agtctgggac cacgggtccca ctcgtatcgt cgggtctgata atcagactgg gaccacggtc	1620
ccactcgtat cgtcgggtctg attattagtc tgggaccatg gtccactcgt tatcgtcgg	1680
ctgattatta gtctgggacc acgggtccac tcgtatcgtc ggtctgatta ttagtctgga	1740
accacgggtcc cactcgtatc gtcgggtctga ttattagtct gggaccacgg tccactcgt	1800
atcgtcggtc tgattattag tctgggacca cgatccact cgtgttgctg gtctgattat	1860
cgggtctggga ccacgggtccc acttgatttg tcgatcagac tatcagcgtg agactacgat	1920
tccatcaatg cctgtcaagg gcaagtattg acatgctgct gtaacctgta gaacggagta	1980
acctcgggtgt gcggttgat gcctgctgtg gattgctgct gtgtcctgct tatccacaac	2040
atcttgcgca cgggttatgtg gacaaaatac ctggttacc aggccgtgcc ggcacgttaa	2100
ccgggctgca tccgatgcaa gtgtgctgct gtcgacgagc tcgagagctc ggacatgagg	2160
ttgccccgta ttcagtgtcg ctgatttgta ttgtctgaag ttgtttttac gttaagttga	2220
tgcagatcaa ttaatacgat acctgcgtca taattgatta tttgacgtgg tttgatggcc	2280
tccacgcacg ttgtgatatg tagatgataa tcattatcac tttacgggtc ctttcgggtg	2340
atccgacagg ttacggggcg gcgacctcgc gggttttcgc tatttatgaa aattttccgg	2400
tttaaggcgt ttccgttctt ctctgcata acttaatgtt tttatttaaa ataccctctg	2460
aaaagaaagg aaacgacagg tgctgaaagc gagctttttg gcctctgtcg tttcctttct	2520
ctgtttttgt ccgtggaatg aacaatggaa gtccgagctc atcgctaata acttcgtata	2580
gcatacatta tacgaagtta tattcgatgc ggccgcaagg ggttcgctc agcgggtgtt	2640
ggcgggtgtc ggggctggct taactatgcg gcatcagagc agattgtact gagagtgcac	2700
catatgcggt gtgaaatacc gcacagatgc gtaaggagaa aataccgcat caggcgccat	2760
tcgccattca ggctgcgcaa ctgttgggaa gggcgatcgg tcggggcctc ttcgctatta	2820
cgccagctgg cgaaaggggg atgtgctgca aggcgattaa gttgggtaac gccagggttt	2880
tcccagtcac gacgttgtaa aacgacggcc agtgaattgt aatacgactc actatagggc	2940
gaattcgagc tcggtaccgc gggatcctct agagtcgacc tgcaggcatg caagcttctc	3000
ttgtgccggt tgtacgctgt caggtcacac tggtagtga ggcagggcac agatgcccag	3060
agcagagggga actttccttg gggattcaac acgtgcaagt cttaggggct ggcaaactct	3120

gccctcagct agagaggggg cttttatttg agaccagaat cacctgagca tcctcctgtc 3180  
 cccagctgtg tccagcctgt ctgcaggagc atcctgagag gaccaggctc tcccctcatc 3240  
 cacctgccta agtgccactc tgaaccctgt ccacctgtgc cgtggagggg cgtgacctca 3300  
 agctgctcag ccagcagcag gcttgccctt ggggggcagc agagaccag gtggctgtgg 3360  
 ggtgggtgct tcgtggcgtg gttctgaaac ttcgttgga gtgtgtggac agtgccttgc 3420  
 ctgttctctg tgggacctta tttagaaacg aggtctgagt tactgggggt catcactgtg 3480  
 ttctgatggc ccagctgtgt ggaggccgag gtgcagcccc atccaaggag ccagggccct 3540  
 ggggtctagc gtgaccagaa tgcagcccc ggaggtgttt ctcactctgc acctgtgttg 3600  
 cctgggtgtg caagtggctg tgaactctg tgtagctct tgggtgttct gaaagtgcc 3660  
 ccgggtctca ggctcagaa ccagggttct ccttcatctc ggtggcctgg gagcatctgg 3720  
 gcagttgagc aaagagggcg attcacttga aggatgtgtc tggccctgcc taggagcccc 3780  
 ccggcacggt gctggggcct gaagctgcc tgggtgtgtg gagaggagg agcgatgaag 3840  
 tggcgtcgag ctgggcagga agggtagacc cctgcaaggt gggcatgctg gggacgctga 3900  
 gcagcatggc cagcagctgg gtctgcagcc tggtagcccg cgggacttgt ggttggggct 3960  
 ggtttgtggc caggagaggg gctggcagga gacaagggg actgtgaggc agtcccacc 4020  
 cagcagctga agcccaatgg cctggctgtg tggtctcag ctgcgtgcat aacctctcag 4080  
 tgcttcagtt ctctcatttg taaaatgagg aaacaaacag tgccagcctc ccagaggtgt 4140  
 catgaggatg aacgagtgc catgtagcat gggctgggtg cgtgtcacct aacatcacca 4200  
 gcctttgcaa ggagagccct gggggcctgg ctgagtattt cccttgcccg gccaccccca 4260  
 ggcctagact tgtgcctgct gcaggccctt gaccctgac cccattgcac ctgtctccac 4320  
 aggagccgag gaggtgctgc tgctggcccg gcggacggac ctacggagga tctcgctgga 4380  
 cacgccggac ttcaccgaca tcgtgctgca ggtggacgac atccggcacg ccattgccat 4440  
 cgactacgac ccgctagagg gctatgtcta ctggacagat gacgaggtgc gggccatccg 4500  
 cagggcgtag ctggacgggt ctggggcgca gacgctggtc aacaccgaga tcaacgacct 4560  
 cgatggcatc gcggtcgact ggggtggccc aaacctctac tggaccgaca cgggcacgga 4620  
 ccgcatcgag gtgacgcgcc tcaacggcac ctcccgaag atcctggtgt cggaggacct 4680  
 ggacgagccc cgagccatcg cactgcaccc cgtgatgggg taagacgggc gggggctggg 4740  
 gcctggagcc agggccaggc caagcacagg cgagaggag attgacctgg acctgtcatt 4800  
 ctgggacact gtcttgcac agaaccgga ggagggttg ttaaacacc ggcagctggg 4860

ccccaccccc agagcgggtga ttcaggagct ccagggcggg gctgaagact tgggtttcta 4920  
acaagcacc cagtgggtccg gtgctgctgc tgggtccatg cgtagaaagc cctggagacc 4980  
tggaggggagc cctttgttcc cctggcttca gtttctcat ctgtagaatg gaacgggtcca 5040  
tctgggtgat ttccaggatg acagtagtga cagtaagggc agcctctgtg aactgacca 5100  
cagtacaggc caggcctctt tttttctttt ttttttttg agatggagtc tctctgtc 5160  
gcccaggctg gagtgcagtg gtgtgatctc agctcactac aacctctgcc tctgggctc 5220  
aagtgattct cctgcctcag cctcctgagt agctgggatt acaggtgcct gccactgtgc 5280  
ttggctaata tttgtatttt tggtagagat ggggtttcac cgtcttgcc aggtggctg 5340  
caaactctg acctcagggt atccacctgc ctacgcctcc caaagtgtg ggattacagg 5400  
catgagccac cagcccggt caggccaggc ctcttttgaa cactttgcac accatgggtc 5460  
ttttcatcca ggggggtagg tacagttgta cagttgagga cactgaagcc cagagaggct 5520  
cagggaactg cccagggtca cacagcagga tgtggcagggt gtggggctgg gcctggcagc 5580  
gtggctccag ctttccagca tagaaatctg tgaaagcaga tagtttgctg gtcggtaggg 5640  
gagactttct gagaccgcc ccagcggctc agagggtagt agccaggggc cttcctggg 5700  
gtcataacc cagaacactg aatgggaaaa ccctgatgga ggaggcgcag tggagctgtg 5760  
gggtccgatg ggaagtccca gaggagctgg gaggtcagta gcggtgctgc cctctgtgga 5820  
gcacttagtg ggcaccagggt gtgtttccag gttcatggcc ctgggacctg aagctcagaa 5880  
gggtgaagtaa cttgcccagg gcaccgctc ggagcggcg ggcagaggat ttgtgggctg 5940  
tggagcctgt gctcgtggcc cagccctggg ggtgtgagt gtgctggccg gggagctttt 6000  
cctgcaagtg gactggtgtc taggagccag catgtcaggc agcaggcagc gggagtgcag 6060  
caggcagcgg gagcacagca ggcagagggc ggggctcag cagccatccg tggaccctgg 6120  
ggcacggagg catgtgggag agggctgtc catggcagt gctgaagggc tgggtgtgc 6180  
cccagggagg gtggatgagg gtaagaagt ggggtcccag gggcttttagc aagaggaggc 6240  
ccaggaactg gttgccagct acagtgaagg gaacacggcc ctgaggtcag gagcttggtc 6300  
aagtcactgt ctacatgggc ctgggtgtcc tcatctgtga aaaaggaagg gatggggaag 6360  
ctgactccaa ggccctcct agccctggtt tcatgagtct gaggatccca gggacatggg 6420  
cttggcagtc tgacctgtga ggtcgtggg tccaggagg ggcaccgagc tgggaagcggg 6480  
aggcagagg gctggccggc tgggtcagac acagctgaag cagaggctgt gacttggggc 6540  
ctcagaacct tcaccctga gctgccacc caggatctgg gttccctcct tggggggccc 6600

cagggaaaca gtcacctgtc ctttgcata gggagccctt cagctatgtg cagaagggttc 6660  
 tgctctgccc ctctctccct ctaggtgtgc agctcctcca gccactagt cagatgtgag 6720  
 gctgccccag accctgggca gggtcatttc tgtccactga cctttgggat gggagatgag 6780  
 ctcttgcccc ctgagagtc aagggctggt gtggtgaaac ccgcacaggg tggaagtggg 6840  
 catccctgtc ccaggggagc cccagggac tctggtcact gggcttgccg ctggcatgct 6900  
 cagtcctcca gcacttactg acaccagcat ctactgacac caacatttac aaacaccgac 6960  
 attgaccgac accgacattt accgacactg acatttacca aactgttta ccaacactga 7020  
 catctactga cactggcatc taccaacact gacatttacc gacactgaca ttaccaaca 7080  
 ctatttacca aactgacat ctactgacat tggcatctac caacaccaac atttaccgac 7140  
 accaacattt accaacactg aaatttaccg acaccgacat ttaccgacac cgtttacca 7200  
 caccgacgtt taccgacacc gacatttacc gacactgata ttaccaaca ctgacatcta 7260  
 ctgacgtggt catctactga caccgatgcc agcatctacc aacaccgaca ttaccaaca 7320  
 ctgacattta ctgacactga tatctactga cactggcatc tactgacacc aacatttacc 7380  
 aacaccagca tttaccaaca ccgacattta ccaacaccag catttaccaa caccgatgtt 7440  
 taccaacgcc gacgtttacc gacgccagca tttaccaaca ctgacattta ccgacaccga 7500  
 catttacga cactgacatt tactgacact gacatctact gatactggca tttaccgaca 7560  
 ctgatattta ccaacgccag catctactga cactgatgtt taccaacacc gacatttacg 7620  
 agcaccgaca ttactgaca ccaatattta ctgacatcaa catttagcca tgtgatggg 7680  
 gccggttggt gggcaggcct tgctcttggt actggggatg ctgcagagac cagacagact 7740  
 catggggtca tggacttctg cttctctctc agcctcatgt actggacaga ctggggagag 7800  
 aaccctaaaa tcgagtgtgc caacttggt gggcaggagc ggcgtgtgct ggtcaatgcc 7860  
 tcctcgggt ggcccaacgg cctggccctg gacctgcagg aggggaagct ctactgggga 7920  
 gacgccaaga cagacaagat cgagggtgagg ctctgtgga catgtttgat ccaggaggcc 7980  
 agggccagcc acccctgca gccagatgta cgtattggcg aggcaccgat ggggtgcctgt 8040  
 gctctgctat ttggccacat ggaatgctt agaaaatagt tacaatactt tctgacaaaa 8100  
 acgccttgag agggtagcgc tatacaacgt cctgtggtta cgtaagatgt tatcattcgg 8160  
 ccaggtgcct gtagacacag ctacttgag actgaggtgg gaggatcgct ggagtccaag 8220  
 agtttgaggc cagccgggc aaaggggaca caggaatcct ctgcactgct tttgccactt 8280  
 actgtgagat ttaaattatt tcacaataca aaattaagac aaaaagttaa tcacatatcc 8340

actgccctgc ttaagacaga aaacatgggt gttgttgaag ccagaggcag ctgctggcct	8400
gagtttggtg attggttcct aagcagttga aggcagtttt gtttttccat agatgtctgt	8460
tctccctttg ctgggtgcag cctcgccctg ctgctgtggt cgggtttcag tggcctcgtc	8520
ccgtggacgc agcctcgccc tgcctgtgtg gtcgggtttc agtggcctcg tcccgtagac	8580
gcagcctcgc cctgctgtgt tggcggggtt tcagtggcct cgtcccgtgg acgcagcctc	8640
gcctcgccgc tgtggtcggg ttccagtggc ctgctcccgt ggacgcagcc tcgccctgcc	8700
gctgtggctg ggtttcagtg gcctcgctcc atgggcgtgc tttggcagct tttgtctcac	8760
ctgtggagcc tctcttgagc ttttttgttt gttgtttgtt tttgtttgat tttgtttgat	8820
tgtttgtttt tgttgtcgtt gttgttgccc aggcctggagt gcagtggcgc gatctcagct	8880
cactgaaacc tctgcctcct tgggttcatt ccattctcct gcctcagcct cccacatagc	8940
tgggattaca agtggccgcc accacgcctg gctaaatttt gtatttttag tagacagggg	9000
gtttcaccat gttggtcagg ctggtctgga actcctggtc tcacatgac cacctgcctc	9060
ggcctcccaa agtgttgga ttacaggcgt gagccaccgc gccagcctc tgttgagcat	9120
attttgaggt tctcttggtg ccagtgatat gtacatgtgt ccccatcgca ccacgtcac	9180
ccattgaggt gacattggtg cctctcctcg ggggtgatgc ctccctctgt ttccagcaac	9240
ttctgaagga tttcctgag ctgcatcagt ccttggtgac gtcaccatcg gggtcacctt	9300
tgtctcctc agggctccca ggggaggccc gaatcaggca gcttgaggg cagggcagga	9360
tggagaacac gagtgtgtgt ctgtgttgca ggatttcaga ccctgcttct gagcgggagg	9420
agtctcagca cttcagggt ggggaaccca gggatggggg aggcctgagt gacgcccttc	9480
ccacgaaaac ctaggagct gcagggtgtg ccatttcctg ctggagctcc ttgtaaatgt	9540
tttgtttttg gcaaggccca tgtttgcggg ccgctgagga tgatttgct tcacgcatcc	9600
ccgctacccg tgggagcagg tcagggactc gcgtgtctgt ggcacaccag gcctgtgaca	9660
ggcgttggtc catgtactgt ctgagcagt gttttcttga gacagggtct cgctcgctca	9720
cccaggcgag agtgcagtgg cgcaatcac gctcgctgta gcctcaatct ccctgggctc	9780
aggtgatcct cctgcctcac cctctgagta gctgggacta cagacacata ccaccacacc	9840
cagctagttt ttgtgtattt tttgtggggg gagatggggg ttcgctgtgg tgcccaagct	9900
gatctcaaac tctgaggca caagcgatcc acctgcctcg gcctcccaaa gtgctgggat	9960
gacaggcatc agccgtcaca cgcagctcaa tgattttatt gtggtaaaat aaacatagca	10020
caaaattgat gattttaacc attttaaagt gaacagttca ggctgggcgt ggtggcttat	10080

gcttgtaatc ccagtacttt gagaggctga ggtgggcaga tcacctgagg tcaggagttt	10140
gagaccagcc tggccaacat gatgaaatcc agtctctact aaaaatacaa aaattagccg	10200
ggcatggtgg caggtgcctg taatcccagc tactcgggag gctgaggcag gagaatcgct	10260
tgagccccggg aggtggaggt tgcagtgate tgagatcatg ccactgcact ccaatctgtg	10320
tgacagagca agactctgtc ttgaaaaata aataaataaa aaaaatttta aaaagtgaac	10380
aattcagggc atttagtatg aggacaatgt ggtgcaggta tctctgctac tatctacttc	10440
tagaacactt tcttctgccc tgaaggaaac cccatgccc cgggcactca cggccattct	10500
cccctctctc ccagcctctg tcaaccacta atctactttc tgtctctggg ggttcacttc	10560
ttctggacgt tttgtgtgac tggaatcctg caatatgtgg tccttgcgtg tggtctcttt	10620
ccatagcatt gtgttttcca gattcaccca cacattgtcg cacgttatca gaatctcatt	10680
cctgactggg tgcagtgggt taggcctgta atcctaacat tctgggaggc caaggcggga	10740
cgatcacttg aggcaggagt ttgagaccag cctggccagc ctagcaagac ccagctacc	10800
aaaaaatTTT aaaagttaac tgaacgtggt ggtggtgggc acttgtggtt ccagctacc	10860
tgggaggctg aggtgggagg atcgcttaag ccaggaggt caaggctgca gtgagctatg	10920
atcgaccac tgcactccag cctggacaac agagcaagac cctgtctgaa aaaaaaaca	10980
aaaaaaaaag ttcttttctt tttgtggctg gatgacatcc cattgtatgg ccacagcaca	11040
ttttgtttgt ctgtttatcg ggtggtgggc agtggtttcc accttttgtc tctgtgaat	11100
aatgctgctg tgaacatttg aattcaagtt tttgtttgaa cacctgttgt gaattatttg	11160
gatatatgtg taggggtagg attgctgagt cctatggtaa tgtaggttt gacttactga	11220
ggaaccatta aactgttttc aacagtggct ggcgcgttct gcatccccac cggcagtgtg	11280
tgagggttct gactttacct cctcacaac gcttcttttc catttaaaaa aatattcagc	11340
caggtgctct ggctcacgcc tgtaatocca gcactttggg aggccgtggc gggcggatca	11400
cctgaggcca ggagttcgag acgagcctgg ccaacatggt gtaaccccat ctctacaaa	11460
aatataaaaa ttagccgggt gtggcagcgg gcgcctgtaa tcccagctac ttgggaggct	11520
gaggcaggag aatcacttga acccgggagg cagaggttgc agtgagccaa gatcgcgcca	11580
ctacactcca gcctgggtga caagagtga actccatcta aaataaaaca aaaataaaaa	11640
taaataaaaa tttattaaaa cattcatcac agccagccta gtgggtgtcc catgtggctt	11700
tgccctcgcat ttccctgata actaggatgc tgagcgtctt gtcccaggct tgccacacct	11760
cagcactttg agatacgtcg cacagtcccc atttgccaac gagaaatgag gtttagggaa	11820

cagcagctgt	gtcatgtcac	acagcgagca	gggggtctct	gagccgtctg	acccacagc	11880
cgaccaagct	ccaatcetta	ccgcctccta	gtgttggtga	tgtagcccag	ggtgctccca	11940
catttttcag	atgagaacac	cgaagctcaa	aacaggagcg	ttttgtccac	attggataca	12000
cgatgtctgt	ggtttggtcc	tgaagtcact	ttatatctca	gtgggtccaga	ctggagtagg	12060
acaggggggt	ctggggaatg	gggaagggtg	ctcaggtgaa	aggaaggaat	tccagattct	12120
ccatactgtc	cttggaagt	tagaagactc	agagggtctg	gcaaagtcag	acaaagcaag	12180
agaaatgcag	tcaggaggaa	gcggagctgt	ccaggaacag	gggggtcgca	ggagctcacc	12240
cccaggaact	acacttgctg	gggccttcgt	gtcacaatga	cgtaggact	gcgtgttgat	12300
taccactttt	tttttttttt	ttgagggtga	gtctcgctct	cttgcccagt	ctggagtgc	12360
gtggcacgat	ctcggtcac	tgcaagctct	gcctcccggg	ttcatgccat	tctcctgcct	12420
cagcctcccg	cgtagctggg	actacaggcg	cctgccaccg	cgcccggcta	atttttgtat	12480
ttttagtaga	gatgggattt	cactacatta	gccaggatgg	tctcgatctc	ctgacctcat	12540
gatccgcccg	tctcggtctc	ccaaagtgtc	gggattacag	gcgtgagcca	ccgcgcccgg	12600
cccgatttcc	cactttaaga	atctgtctgt	acatcctcaa	agccctatac	acagtgtctg	12660
gttgctatag	ggaatatgag	gcttacaggc	catgggtctg	gacacacaga	agggacggag	12720
gtcaggaggt	agaagggcgg	agagagggaa	caggcgagg	tcacatcctt	ggctttcaaa	12780
atgggccagg	gagagacacc	ctctgagcat	ggtaggacag	gaaagcaaga	ttggaacaca	12840
ttgagagcaa	ccgaggtggc	tgggcgtggg	ggcttacgcc	tgtaatccca	acactttgga	12900
aagctgaggt	gggtggattg	cttgaggcca	ggagttcaag	accagcctgg	ccaacatggg	12960
gagaccccg	ctctactaaa	tatacaaaaa	ttagccaggc	gtgatgggtc	atacctgtaa	13020
tcccagctgc	ttgggaggct	gaggcaggag	aattgcttaa	acctgggagg	cggaggttgc	13080
agtgagccga	gatcccgcga	ctgcactcca	gcctgggcca	cagagtgaga	ctccatctca	13140
aaaaaaaaaa	aaaaaaaaaga	taaaaagacc	aaccgaggaa	ttgaagtggg	ggggcggtcac	13200
agtagcagaa	gggggatcgt	ggagcaggcc	accctgtggg	catgcactgg	aagctcatta	13260
cctgacgatt	tggagctcat	cactgggggc	ctaaggagaa	tagatactga	aggatgagga	13320
gtgatggcgc	ggggcacggg	tgtctttggg	ggccagaact	tggggactgc	tgggggtgcct	13380
cactgcaggc	cttctcagcg	ccctttatat	gcttacacag	gctgtttcta	agagggggat	13440
acattgcata	agcgttttca	gactacctca	tcatgggtcc	ctttctttac	cctctgtggc	13500
cctggtggcg	cactctctgg	gaaggtgcag	gtggatgcc	agacccgccc	tgccatccac	13560

ctgcacgtcc agagctgact tagcctcgag attgctgctg gcacctcctg ccccgggaca	13620
cctcggtatgt gcccgtggag atgctggctc tgtgttttct gctggagttt ggtgcgtctt	13680
ttcctcctgc aagtggccac cgctcttggg tatgtcctca ggcttctgcg agtcatggct	13740
gcttctcagg tccttgccca gcgccaggag caaacctctc tggcactttg ttcaggggtg	13800
gatgcgccag tgttcctgct gtggaccccc atctcacatg agggctcttg gcctgcaggc	13860
tcgttcagga aacacccgct gagtacgcag tgtgtgccag ctgtgtccca ggcaatggcg	13920
gggacagtgg ctgctgctgg ggttgtggtg gcttctgggg actctgggga cagctgaggt	13980
gcaaggagcc acggctcctt gaggatgcag ttggactcca ggtggaaggg atggttgggg	14040
gaggtataaa tggggtcagg gaggagacac atttgaaca atgggaacat ttttaagatg	14100
ctatgtcggg aggcaacaag gtggccaacc caggtgctga ggagcccaca ccagccctgg	14160
acgtgttttg ccgctcacct ttgctgggga gtggtgggag agaggattcc gttccacgtg	14220
gtggtgtgcg cagctgggct gtgtggagct gggcgctagg aggaagggtc tttctgcggg	14280
gctagccggg ctctgccttt gaacacaatc aggtctcagg ttttcagcat ccagtgcagt	14340
agaggacttc acgggcagct gtggctgata ccttgatgaa ttgggagaag aacaaaggtc	14400
tatgaaatga ggtttcatgt agatggcatt agagacgccc acaacagatt tacagagtgg	14460
agcggagacg gcggatgggt ctgggaggcc cctcctgctg gccttgactg tgacagctgt	14520
cctgggaatc agcttcagg ccgccccagc agcctgactg acacacacag gggttttagc	14580
cccatcctgc gaccagctgt tgccatcatc agtgacagct gggagtggcg gtggttccag	14640
ccctgggcac cctccccacc tgctggggcc caccagggc agtcctgaca cctacaggtt	14700
gcttgagacc gcatecgagt cctgccccac cacgtgtgaa gcccgagtgg tcgtgggctg	14760
aggccccctg attgcatccc cacttccctt ctgcttcaca tagctgcctc ttctcacctg	14820
ttttccagcc tcctgggcta ggaattccag tgttgtgctg gctttgcccc aggacacctc	14880
cttagccctc ttctgagtc tagagccccg ggggttgga gttctggccc ctgggacacc	14940
tgcagccaca ctcagcttct cctgtgagcc tccagcatgt ccctcagga ccaagccctc	15000
acgttcttgc ctecccgccc acctgggctc agccagggga aggcctggct gggagcgtct	15060
ccctctgcc ctgcccttct cccctctacc ctgcccttct ctctctgcc ccgcatggc	15120
ttttatatcc tgtgccacaa gacatggctg tgtgtgaaag tggcagggtc tggcatctct	15180
gtgggtctct gagggccacg ctccagtgcc actcttccca cccgctggcc gtgccctcat	15240
gctggaggga cagcccagcc ctctcccgaa cccagcccc atgtgcccag ctgcccccg	15300



ccctctcccc	tggaagccgg	ggtcactcca	gccgtatgcc	atggtgggga	catcctgctt	15360
ccttggcctt	ccaggggaagg	tcctctttcc	aaatggcgac	acctgggtccc	tgccctggagg	15420
ctggaagctg	tggeccctgt	atgcccctcc	agggctctgtg	cgctcggttg	gcccagattc	15480
ccatcacctg	catcatcacc	atcatcattg	tcatttcgct	tgtctgtgag	cgggcctgg	15540
ctcccagagc	agagaccctc	tgagggtccag	cctgagttgg	ggctctccgtg	ctgacccttg	15600
acggggactc	aggacgtacc	aggtctgggt	caggagtgac	ccccaaacct	cgtgcccttt	15660
gacaggcacc	cctgactttt	gctaagtggg	tggaggtgac	atcacttaca	gcgggagtg	15720
tgggacaggg	tctgttggct	gcactgtgct	cccagggatc	tggggagagg	ctatatccct	15780
gggctttggc	actgcagagc	tgtgtgtgtt	tgtgtgtgtg	tgtgtgtgtg	tgtgtgtgtg	15840
tgtgtgtgtg	tgtgtgtgtg	tttgctgctg	cgcacatgtg	tataagatct	ttttttatta	15900
catgaagcaa	gataactgtt	gctgtttcct	tttgggtttt	gtgttcaaca	gagtggggta	15960
cttcttccct	cagacaacag	aactctcccc	tttaaacacg	tgctgtcaga	gggtgggtct	16020
tgggctcatg	tctgtttgca	cagccgagtc	agaggaaaca	cagggttctt	cataaaaaa	16080
ctgcacagca	ggcgactgtc	cagagtcagc	ctgcaggacg	gcagcagccc	tgcccctcag	16140
agcacagcta	gggtgggctg	ctttgggatc	tcccgtcatt	ccctcccagc	tggcagccgg	16200
cggccggccc	attccttgg	gtgctgggtc	ggggggcgctg	cgctgctct	gctcacctg	16260
ggaatgggac	agaagctggc	agctcggaga	ggacagggt	ggacccttgg	gtggcctctg	16320
gctggaccat	ctcattgtcc	tcagacacag	cctctcgggt	ctagtttcat	ttcctgaaaa	16380
acaagtgcac	agaactagag	caggagtcga	gagctacggc	ccccgggcca	gatccagccc	16440
tgccacctgt	tttcacacca	tgctcaagct	gagtgggttt	tacatttttt	aattacttga	16500
aaaaaaaaa	gccaaaggag	gtttcatgac	ccatgaaaat	tatatggaat	tcaaaaaaaaa	16560
aaaattatat	ggaattcaaa	tttcagtgtc	cataaataat	ttcttgagac	aggggtctcgc	16620
tctgtcacc	aggtggagt	gcagtgtat	ggcatggctc	gctgtaccct	tgacctccca	16680
ggctcaagcg	atcctcctgt	ctcagcctcc	tgagtagctg	ggactacggg	tgtgtgccac	16740
caagcccggc	taattttttt	ttaatttttag	taaagacagg	gtctttctat	gttgcccagg	16800
cttttctgga	actccatctt	ggcctcccaa	agtgtctggga	ttacaggctc	gagccacgga	16860
gcccagcctg	tttttgtttt	ttcactgata	aagttttgcc	gggtgtggta	gtgtgtgcct	16920
ctagcgattt	gggaggctga	gggtgggagga	tcgcttaagc	ccaggagttt	gaggctgggc	16980
tcaagtgatc	aggaggtgaa	ctatgatcat	gtcattgcat	tccagcctgg	gtgacagagc	17040

aagaacctat	ctcttaaaaa	tatatattta	aaaagtattg	ggtgtggtgg	ctcacgcctg	17100
tggtcccagc	tacttaggca	tctgaggtgg	gaggatggct	tgagcccagg	agtttgaggt	17160
tgcagcgagc	caagatcgtg	tcactacact	ctagcctggg	tgacagagcc	cagaccctgc	17220
ctctttaaaa	aaaaaaacca	aaaaacatgt	attggaacac	agccatgcct	gttcagtcac	17280
gtgctctcca	tgctgctttc	tgctccagag	acccttatgg	cctgaaaagct	gaaaaatattt	17340
tctatecttt	acaaaaaagt	ttgctgacct	ctgtcctgga	aaattcatct	cccaagttct	17400
cttcgggcac	tggcgttcct	gggtgtccta	aatttgcccc	ctgttatttc	tgaactctgt	17460
tttggtctctg	ttccctccca	ggagccagga	caggcacgtt	ctctgcatct	tgtcccctga	17520
cgcccagagg	cttggtctcg	ctcaggcatt	cttggaata	tctggctcca	ggaaaggcag	17580
aggcctcctg	agtcagccca	gagggaacct	gccccaggtc	tgggggaggc	ctgaccacgc	17640
agagtggctt	ttgccgatgg	gttggggcgg	tcaagatgtg	ctgaaaagttg	tcctcagaag	17700
gccacttttg	gattccttcc	tccagtatta	gagcaactga	gagctgctca	ttgcaagcct	17760
gatgttttcc	cagttggccg	ggtccaccgg	gtgccctggg	attctgggat	ctgggtggaa	17820
agtagggggc	ttgggggagt	gtcctggggt	ctggaatcca	ggtggcaagt	ggtgaggttc	17880
agggagtggc	ttctgagcca	ccataggggt	ctctgtggga	ggctctgccc	atccaggaga	17940
ttccgcaggc	cctgccggcc	cagagccagc	gtcctgcgct	tgccgaggct	acagccagcc	18000
ccagccgggt	ggaacagccc	gtcgctcctc	ctcactttgt	tttggggcca	cctgggagtg	18060
tggagcaagg	gtagagaggg	aggaagtggc	tgccggccgc	tgcccagcac	ccttgtttgc	18120
cttgggccct	ctgtgggctc	ctttttattg	ctcttcaatg	aagccaggga	aatggacttc	18180
cttgccctcac	ttcagttcaa	catgtctgga	agtttggtat	taaaattaag	aaagtgtgga	18240
aatagagcaa	gaagagaaaa	atctctccaa	gagataatag	tgacctctga	gctgggcgcg	18300
gtggctcacg	cctgtaaatac	ccagtacttt	gggaggctga	ggcgggcaga	tcacctgagg	18360
tcgggagttt	gtgaccggcc	tgaccaagat	ggagaaaccc	cgtctctact	aaaaataaat	18420
aaataaataa	ataaataaat	acaaaattag	ccaggcatgg	tggcgctctg	ctataatccc	18480
agctaaggca	ggagaatcgc	ttgaacctgg	gaggcaaagg	ttgcagttag	ccaagatcac	18540
gccattgcac	tctagtctgg	gcaacaagag	tgaaactccg	tctcaaaaaa	aataaataaa	18600
taaaaaataa	aaatagttag	ctctggccag	gtgtggcagc	tcatacccg	aatcccagca	18660
ctttggaagg	aaggccgaga	tgggcagatt	gcttttagcac	aggagtttga	gaccagcctg	18720
gccaacatgg	tggaaaccca	tctctacaaa	aatagaataa	aatttaagag	gtaatagtga	18780

ccttttggtg	gatecgaacc	tggattgctt	tctttttcta	aatgctgatt	cttttctttg	18840
tgggtgtttg	gttctgtgcc	gatgtccctc	ccccagccct	gttattgtga	gtggaagaag	18900
gggaaagggg	tcgcccgtca	ctgtgagccc	ctcctctcac	gctgggtgtc	cttggagaag	18960
cctgcacttc	ttcattgtac	gccagggctg	ggccccccc	tggagtgggt	ctgtgctgct	19020
gggatggggc	caacccctca	gatgttttct	gagtgtcaca	cacaggtgtg	tgcattcatg	19080
gcctttgcgt	gtcttctgt	tgtggaggca	aaaatgtgaa	gaaccctaga	tgattttggg	19140
accagggctc	catcacctgc	tgttcattgc	acaccggagc	atccaggcat	gggtggagag	19200
ctcagacttc	caggcacggg	cgcaggggct	ggctaacca	tggtcccgcc	cgctgctcg	19260
tcagaaccgc	ctggtgggag	ctgttatcat	gataccatac	ctgggccctg	ggctatccga	19320
ttctgactta	attgctccag	gttggggcca	ggccgttggt	tgctgttttg	ttgtttcttc	19380
tgtgacgtta	gccactgggc	taatctgagc	ccctcagtta	caggtggaga	aactgagacc	19440
catgggggtg	caaggacttg	ccgaggaccc	agagccctt	gggggcagag	ctgaggcggg	19500
gcctggcttt	gggtcccaga	gcttccagtc	ccctcccgcc	tctcctaaca	gctttttttt	19560
ttgagacaag	atctcacctc	gtcacccagg	ctggagtgc	atggcatgat	ctcggtctac	19620
tgcaatcttc	gctagctgcg	ttccagcgat	tctcctgcct	cagcctcccg	agcagctggg	19680
attacaggtg	tgtgccgcca	tgcccagctc	gttttttttt	gtacttttag	tagagatagg	19740
gtttcaccat	gttgccagg	ctgatctcga	actcctgacc	tcaaatgatc	cgctgcctc	19800
ggcctcccaa	agtgcctagga	ttacaggctg	ggatcacact	gtgcctggcc	ctagcagctt	19860
tgtcctgtgc	catccaacaa	cagatgaccg	aagtctttgt	ttcttaacat	gcattccatc	19920
tgccctacag	ttttgccacc	tgcaaacag	aggacttgct	gcttttctgg	taagctggaa	19980
atgtaatctg	gtagcaggag	gcctgtggaa	gcttgccctt	aatggccttg	tgtctctttc	20040
atcctgtcct	gagagccgga	gaacttggat	gttgaccta	actcaacctt	cctgttaaca	20100
tacagttctg	caggctcatg	gatcatcaga	accacgtcct	atctcacgcg	gctgtatgct	20160
tccgttggtt	cagggtgttt	taccttgaca	gtattttctc	ctcggtggct	tttgcggtgg	20220
ttgcttttaa	tcagcattga	ctcttcaaga	aaaatattta	gctgctacat	ctcagaggag	20280
acaggggtga	aagcatctga	gacctgcagg	ctcagactta	gaaccagaag	tgccctcaga	20340
gttcatccgg	ccctgaccca	gcgggaaatg	agttcacaga	gaagcgggag	aactttgccc	20400
caggccctgc	cggtgtcat	aactgcccc	ggctcttaca	tttgctccag	gtcctgcccc	20460
aggccctgca	gttgctcata	actgccccag	gtccttatat	ttgctccagg	tcctgcccc	20520

ggtcctgcag ttgctctgtg tgggtgggtgt gatctggagc cctccgcca ttgctgcacc	20580
tggggcaggc attgctaatt gatcccagga ctcttctctg cggagcacgc cctgggtctc	20640
caggcagccg ctgcctgtca gcctgcagtg gttcgggaga ggacacctgc ttgcctggtc	20700
tgttccaaat cttgcttctc atcccagcac aggtaggggg tgctatggga aagggtatct	20760
cagttggccc tgtcactgct ctatcagctg gggacgtggc atcctagtga aaacatcatg	20820
gccgggcgcg gtggctcacg cctggaatcc cagcactttg ggaggctgag gaggggtgat	20880
cacttgaggt cagaagttcg agaccagcct ggtcaacatg gtgaaacca tctctactaa	20940
aaatacaaaa attcgccagg tgtggtggcg ggtacctgta atccgagcta ctggggaggc	21000
tgaggcagga gaatcgcttg aacctgggag gtggagcttg cagtgagccg agatcttgcc	21060
actgcactcc agcctgggca acagagttag acgctgtctc aaaatctcaa acaaacaac	21120
aaacaaaaaa caaacaaca aagcgtcatt tatccagcac cctggggaa ccatgctacc	21180
tgggtgttta tggtagcttg caagggtgcag gtgaagttgc tgctcttggg cattgaaccc	21240
gtcttgcttg gggcagctca gggcccaggc aggggtccggg ttggctctcg ttggtgtggc	21300
cctggcccat ccagacctat atttctgccg tcttgcaggt gatcaatgtt gatgggacga	21360
agaggcggac cctcctggag gacaagctcc cgcacatttt cgggttcacg ctgctggggg	21420
acttcatcta ctggactgac tggcagcgcc gcagcatcga gcgggtgcac aagggtcaagg	21480
ccagccggga cgtcatcatt gaccagctgc ccgacctgat ggggctcaaa gctgtgaatg	21540
tggccaaggt cgtcgggtgag tccggggggg cccaagccat ggctcagcca tgcagacttg	21600
catgaggagg aagtgcaggg tccatgcctg ggcataagtg ttgagctcag gtgccccgac	21660
ctggggaagg gcaggacagg aaaggtgaca gtatctggcc aaggacagat ggggaaggac	21720
caaggagct gattagggag tggttatgga ctaggaatgt cggtacaat ggttagaaa	21780
tgactaacat ttgttgagca cctgctgtgt gcccgccct gccggggagc cttcgtgcc	21840
acagtgacct cgtctgcaaa tgtagttct tgcctactc gactgggga gcaggacgca	21900
gagccgtgca tctcacaggt gccaagetca ggactcctc ctgggtctgc ctgggctggg	21960
ctgtgcttgt tgccctgtg gccacgcct gtgcacctc cacctgaaag ccaggatctt	22020
caggacgtc cccgaggagg tcgttgtctg gcacaatgat ttgtctctc ctgaaaagg	22080
gacagagtta cactggagag agcagcatcc aggtgcggca gggacaggcc tggggctcgc	22140
gggcagggac tctgtgtcct gccgggggtcc cacactgcac ctgcttgtca gaggcactca	22200
gtcaatcttt gctgatgaag gatgagagga cagaggacgt gatgcttgct gctgcattgc	22260

ctgcagtcct	gggtgagatg	cccgggttga	ctctgctgcc	cgtcgggtgg	atgtgatgtc	22320
agatccccgg	ctttaaaata	cgagggagct	gggaattgag	ggagcagggt	ggggcagaaa	22380
gcacagcccc	gtggaagcct	ggagctgagg	cagtgtgggc	gacccttga	gcagtgagtg	22440
cttccttcat	ggccttcac	gcaccctgca	gtcctcatgt	aggggatgcc	atccatgaat	22500
ttagttttcc	cagcctcctt	taaaaacgcg	ttcatgctgg	ggccggggca	gtgcagtggc	22560
tcacatctga	aatcccacca	ctttgggagg	ccgaggcggg	tggatcatga	ggtcaggaga	22620
tcgagaccat	cctggctaac	aaggtgaaac	cccgtctcta	ctaaaaatac	aaaaaattag	22680
ccgggtgcgg	tggcgggcgc	ctgtagtccc	agctactcgg	gaggctgagg	caggagaatg	22740
gcgtgaaccc	gggaagcggg	gcttgcaagt	agccgagatt	gcgccactgc	agtccgcagt	22800
ccggcctggg	cgacagagcg	agactccgtc	tcaaaaaaaaa	aaaaaaaaagt	acaaaaaaaa	22860
aaaaattagt	ctgggtgtgg	tatcacgcgc	ctataatctc	actactcgag	aggctgaggc	22920
ggagaattgc	ttgaaccag	gaggtagagg	ttgtagttag	cccgatcgt	accactgccc	22980
tccacctggg	caatagagcg	agactctgtc	tcaaaaaagaa	aaaaaaaaaaa	agaacattta	23040
tgccagggtg	ggtggctcat	gcctgaaatc	ccagaacttt	ggaagactga	ggcaggaggga	23100
tcacttgagc	ccagaaattt	gagagtgtct	tccctgggca	acatagagag	acctcatctc	23160
taccagaaaa	aaaaaaatta	gcccggcatg	gtggcatatc	cctgtggtcc	cagctactta	23220
gggggctgac	gtggcaggat	cacctgagtc	tggaggcaga	ggttgaagtg	agctgagatc	23280
atgccactgc	actccagcct	gggtgacaga	cagagaccct	gtctcaaaaa	aaaaaaaaaaa	23340
aaaaagcatt	tactatccac	catggaaggt	gagactgacc	tgtgagtgat	tgttcaaaga	23400
acaaaaata	aacccagag	ataagacaaa	aggggtgcctc	catgggggtg	tgatttaaag	23460
ctgagaaatt	gggcttcttc	cccctcccct	ctcaccctgt	ggtttgctaa	aggagatggg	23520
aaaaaggatt	cttttttttg	ctgaaatatt	taacactaaa	ttaaagccaa	ttttaacagc	23580
acttttggtg	atgagtga	taaacagact	ggccaaaaat	aaacgaacgg	tctgtactat	23640
gtgaaaaaga	ggcagctttg	gccatgctgg	gccaatgtga	gttttcaggg	ttgctgggaa	23700
tgtctgtgaa	tcggaggaag	ggcctagctg	ggactctcag	gagccaaggc	cctgaggggc	23760
aacttgccctg	gtccctgccc	tgaggcgttc	actgctttct	tcctgggcca	gatcacaggc	23820
ccggaggctg	gaccactggg	ctggcactct	tgccgagctg	ctccctgact	tcctgaccat	23880
gctcctttca	gcagccttgc	tgacttttag	tttccttgaa	tgaaaaatgg	ggatgagaat	23940
agctcctacc	tccaaggtga	atggagttag	ttcggacagg	tgaactccctg	ggaccagtgc	24000

ctggcgccctg acaaggtcca gtcagagccc gcactgctgt tactgatacc cttggctgta	24060
ccaggggaga acttggttgc cattgccagg tgttctccca ccacccccac tactgtccct	24120
gtttgatgtg tggcggaat aaagctgtgc acattggagc ttttggcaca tcttggttt	24180
caggtgaaag gtgcgtgtgt gtttgagggg ttagcctggc caaccagcc atgaggtcgg	24240
acctgacctg ggggtgagtc ctgagctcgg caccctgag ctgtgtggct cacggcagca	24300
ttcattgtgt ggcttggccg caccctttc cctgctgggc tgttgatgtt tagactggag	24360
cctctgtgtt cgcttcagg aaccaaccg tgtgcggaca ggaacggggg gtgcagccac	24420
ctgtgcttct tcacaccca cgcaaccgg tgtggctgcc ccatcggcct ggagctgctg	24480
agtgacatga agacctgcat cgtgcctgag gccttcttgg tcttcaccag cagagccgcc	24540
atccacagga tctccctcga gaccaataac aacgacgtgg ccatcccgt cacgggcgtc	24600
aaggaggcct cagccctgga ctttgatgtg tccaacaacc acatctactg gacagacgtc	24660
agcctgaagg tagcgtgggc cagaacgtgc acacaggcag cctttatggg aaaaccttgc	24720
ctctgttctt gcctcaaagg cttcagacac ttttcttaa gcactatcgt atttattgta	24780
acgcagttca agctaataca atatgagcaa gcctatttaa aaaaaaaaa gatgattata	24840
atgagcaagt ccggtagaca cacataaggg cttttgtgaa atgcttgtgt gaatgtgaaa	24900
tatttgttgt cgttgagct tgacttcaga cccccacc actcccttgt cggtgccgt	24960
ttgctcagca gactcttctt tcatttatag tgcaaatgta aacatccagg acaaatacag	25020
gaagactttt tttttttttt tttgagacag agtcttactc tgttgccag gctggagtac	25080
cgtagcgtga gctcagctca ctgcaacctc cgctcccag gttcaagcga ttcttctgcc	25140
tcagcctcct gagtagctgg gactacagac atgcaccacc acaccagct aattttttt	25200
atatttttag tagagacagg gtttcatcat gttggccagg ctggtcttga actcctgacc	25260
tcaggtgatc tgcccgctc ggctcccaa agtgctgaga taacaggtgt gagccaccgt	25320
tcccggcata ggaaaacttt ttgccttcta aagaagagtt tagcaaacta gtctgtgggc	25380
tggccttctg attctgtaaa gaaagtttga ttggtggctg ggtgcggtgg ctcacacctg	25440
taatcccatc actttgggag gccgacgtgg gcatatcacc tgatgtcggg acttcgagac	25500
cagcctcacc aacgtggaga aacccgtct ctactaaaaa tacaaaaaa aaattaaccg	25560
ggcatggcgg cgctgcctg taatgcgagc tactcaggag gctgaagcag gagaattgct	25620
tgaacctggg aggcggaggt tgtggtgagc tgagatggca ccattgcact ccagcctggg	25680
caacaaaagt gaaactccgt ctcagaaaaa aaaaagttag attggtgtaa ccaaagcgca	25740

tttgtttatg gattgtctgt ggcagctttt gttctgccga gatgagttgt gacagatctg	25800
tatgggctct aaagcctaaa acatgtgcc a tccgccccctt tacagaaaaa gtgtgctgac	25860
ctctgttcta aagtattgga caactacaat gtttgcctcat ttattattct atgatttggt	25920
ttctgctttt tgttggtgtt gttgttggtg agataggggt tccctctgtc actcaggctg	25980
gagtgcagtg gtgtaatctc agctcactgc agcctcgacc tccctgggctc tagtgatcct	26040
ctcatctcag cctccctagt agctgggact acaggcacac accaccactc ctggctgatt	26100
tttttttttt tttttttttt ttgtggagac aggggtttccg catgttgccc aggctgggtt	26160
caaactccta ggctcaaaca cccacctcag cctcccaaag tgctgggatt acaggcgtga	26220
gccaccatgc ccagcctatt ctactgtttg tattacatag ctttaaaaga ttttttatga	26280
ctttaagtca caagggttct ttgtagaaaa aaatatatat ataggaaagt ataaaaagaa	26340
agtaaaaatt gtccataacc tctccagcca gagacgaccg ttgctgacac ctgagcatat	26400
tgcccttaag tcttttttct ctaagatagc atttctcttc atcacagtca tatgctacgc	26460
agaattctgt atcctgattt ttctacttga cattacaaca ggtatttgat ggcgctgtga	26520
caaactcttt ggcacaatct tttaaatgta tgaaatactc cactgcacag atgtttgctt	26580
ttaggcttaa ctgttctttt attttgctg tgctgggttac agccgggcac agtggctcat	26640
gcctgtaatc acaacacttt gagaggggtga ggcaggagga tcacttgagc ccagaagttt	26700
gagaccggcc tgggcaacat agtgagacc cactctctaca aaaaactttt ttaataagtc	26760
gggcgtagtg gtgcatagct gtagtcccag ccaccaagga ggctgagttg ggaggattgc	26820
ttgagcccca ggaggttgat gctgcagtga cctgagatta ctccactgta ctccaacctg	26880
agcgacagag caagacttgt ctggggaaaa aaaaaaaaaa aatatatata tatatatata	26940
tatatataca tatatacata cacgcacaca cacataatat aaaaatatat atttataaat	27000
atataatata taatataaaa atatatatat ataaataaaa tttataaatt atatttataa	27060
gtaaatatat aatatataat ataaaaatat atattatata atatataata aaatatataa	27120
tataaaaata tatatttata aataatatat aatacatact tataagtata tatttataat	27180
atatgtaatg tatatttttt aatgtatgat atataatata catttataaa tacacattta	27240
tattatttta tataaaatat atataaaatc tccaagttgc tttttccaaa aagggtgctt	27300
gctgcatttc aaacattcat ttaaaaaactt gaatgctggt gatctgggtcc agaatgtgtt	27360
cagtagctgc tgccagtggc caagcatctc gggagatgtc tacaaaacac gctgggtctg	27420
gcctggcggtg gtggctcacg cctgtaatct cagcactttg ggaggctgag gcagggtgat	27480

caactgaggt ctggatttcg agaccagcct tgccagcttg gtgaaacccc atctctacta	27540
agaatacaaaa aaaattagcc aggcgtgggtg gcatgtgcct gtaatccac ctacttggga	27600
ggctaaggct ggagaatcgc ttgaaccag ggggcagagg ttgcagtga ccgagatcgc	27660
accattgcac tccaggctgg gcaagaagag cgaaactccg tctcaaaaaa aaaaaaaaaag	27720
atgctgggttc ctaaaatgtg gcccttttcc tctcacctg ctgccagacc atcagccgcg	27780
ccttcatgaa cgggagctcg gtggagcacg tgggtggagt tggccttgac taccocgagg	27840
gcatggccgt tgactggatg ggcaagaacc tctactgggc cgacactggg accaacagaa	27900
tcgaagtggc gcggtctggac gggcagttcc ggcaagtcct cgtgtggagg gacttggaca	27960
accocgaggtc gctggccctg gatccaccca aggggtaagt gtttgcctgt cccgtgcgtc	28020
cttgtgttca cctcgtatga gacagtgcgg gggtgccaac tgggcaagggt ggcaggctgt	28080
ccgtgtggcc ctcagtgatt agagctgtac tgatgtcatt agccttgatg gtggccagga	28140
ctggtagggc cctcagaggt catggagtcc cttcgtggag cgggtgctga ggctgtatca	28200
ggcacagtgc tggtgctttt cacctgggccc gtctcacca agtgtccatg gagcctgcgt	28260
aggggtgggta tctgtgtcga ttttacagat gcagaaacag gctcagagaa accgagtga	28320
ttccctaagg tcacataccc agttagagca gagctgggccc aggaagtgtc gtctcaggct	28380
cctgaccagg tctccttgc tttgactctt gccaaaacca tgatccagaa ctgactttga	28440
ggtccccgga cctcaggctc ctccgaaatg gcctcttgga ggctgctgag ccacagctta	28500
ggaccacact cgagaggcaa atgtgctttg agctgccagg cgtcctgggg gccctgcctt	28560
gggcacgggg ttcagacagg cccagatgt gtggggcgctc tttctggact tgagttttct	28620
tttctgtgtg gtggacacag tgetcaccoc ttaaagcacc tgtgatgtgt gcagcagccc	28680
aatccctgcc tgtgcctgt tctgctaggg aaggaaggaa gacttcagga tggcaggaca	28740
acagaaagag gtccagggtt tagagcaagg gcagggtcaa cttagaaaat tctggaatga	28800
ggatgtgcat ttcctcttct ggatctgcta aaagaagagg gaaggagggg ctgctggggg	28860
aggagcccag agccgagttt acatccggat cccgcaaggc ctccctgcc ctgaggtctt	28920
gttttgtgat gtgcttgtgt ccatacctgg tttctgcctg tccccaacat ccggccaagc	28980
ttaggtggat gttccagcac aactcacc tgtctgtgca cctgtttttg tgtccgtaag	29040
tgggtattta ctcaccttac gagtgaacca ctgtgggaat tcaggagagg ggcgcagtga	29100
ccaccctgg agggatatgt gtgtggcagg ggtcgagggt ctcgcccttc cctgcttctt	29160
gcgcgtggct tttccagga cggggagggc tgagctgaag aggtggggac agttgcgtcc	29220



ccccgccacc cactgtcctg cgggtgagagc agactcactg agcctgccct tctcccttgt 29280  
gccttccagc tacatctact ggaccgagtg gggcggcaag ccgaggatcg tgcgggcctt 29340  
catggacggg accaactgca tgacgtggt ggacaagggt ggccggggcca acgacctcac 29400  
cattgactac gctgaccagc gcctctactg gaccgacctg gacaccaaca tgatcgagtc 29460  
gtccaacatg ctgggtgagg gccgggctgg ggccttctgg tcatggaggg cggggcagcc 29520  
gggcgttggc cacctcccag cctcgccgca cgtacctgt ggctgcaag tcccccaacc 29580  
tggcaggagc tgtggccaca cccacgactg cccagcagcc tcacctctg ctgtgggagt 29640  
tgtccccgtc caccctggg tgctttgtc gcagttatgt cgggagaggc tctggtgaca 29700  
gctgtttcct gtgcacctgc tgggcactag gtcccagcta atccctgtgc caggactcta 29760  
atttcacct aacacacatg gtggttttca ttgctgggga agctgaggcc tgagcacatg 29820  
acttgcctta ggtcacatag ctggtgagtt caggatcccc cagagatacc agggccagca 29880  
ctcgatcccc acccagccct gaaccccacc atgtgctggg attgtgctgg gagtgtccac 29940  
acgctggga cccagggt ggtgctctca tctcctttt ccagatcatg agaatgaggc 30000  
tcagggaagt ttgaaaaaaa cctatcccaa gtcacacagc aacaggagca ggatttgaac 30060  
ccagaaaagg ggaccgcaca ctctgttctg ctagagtagt tagctgtcct gggatgatg 30120  
gcaggtgaca ggggcaactg tgcttaacaa aggaaccccc atccccctg ccaagttggg 30180  
agactagaag gtcaggggca gaagctctga agggccaggt gcagtggctg acacctctaa 30240  
tcccagcact ttgtgaggcc aaggcgggca gatgatttga gcccaggagt tcaagatcag 30300  
cctgggtaat gtagtgagac gccatctcta caaaaaaatt ttttaaaaat tagctgggca 30360  
tggtggttca tgctgtagt ccaagctact tgggaggctc aggtgggagg attgcttgag 30420  
cccaggaggt tgaggttgtg gtgagctgtg atcatgccac tgcactccag cctgggcaat 30480  
agagttagac cgtctccaaa aaaaaaaaaa gaagaagaaa aagaagctct gaggtccaa 30540  
gtccccaggc accccttggc ttgagggcag acaaggagg agagggtcac ctgggcagcc 30600  
ctgacttttg tcccctggca aaggacctt cagtgcctt ggccctagga gagcctctga 30660  
gcacgtcagc catgtcgaac cgctcaggaa gggcagcaag aatttggtt ctgacctctg 30720  
cctctcctac tcgccatctg cactgggtgt ggttggtccc attttacaga tgaggaggct 30780  
ggggcatcga ccagctgaat gccttgctcc aggtactgcg taggcagagc tggcagttga 30840  
accccgctgc ctggttgctg ctgggggtgg gctgcacct gacttgtag gccagtagca 30900  
aggtttgcac gtgacttctg gaccgtcacc cagctctgca gcacatccc tgacctagct 30960

catccaggcc gcatgcaaac ctgttgccag gcgagaaacc agtcaccgca cagctgtggt 31020  
 tgccctgaaat gattaagctc attaatcacc ccggagttag gacagactca gatgaaaacc 31080  
 agcaaaagcc ctggaaactc atgtgaccct gccaatgagg gcggccatgt gcattgcagc 31140  
 ctggccgtca ctccctcggtc cgtgttttgg acttaaaccgc tccggatggt tactgagtgc 31200  
 ttgattaata acatggaagg cctgggtctca ttgctgtggg agtgaaggat gcacagccag 31260  
 gcttgacatg atgagaacaa gaacctggag tctcgtgcc tgggtggtaa tccctggccct 31320  
 gccacttagc aactgtgtga ctgtagccag gtcacttaat tttgctagat cctgcctgcg 31380  
 cttcagtga tcttgcgtgt tttccaagggt ggccaaacac ttttaaggcat tcatgtggtc 31440  
 gctaggctgc agggttgaac cctggctcac cccgcagggc gccgtgtgct ctgtggcctg 31500  
 gctgtgcctt tgctgacacc gtgcccgtgt gtgttcacgc aggtcaggag cgggtcgtga 31560  
 ttgccgacga tctcccgcac ccgttcggtc tgacgcagta cagcgattat atctactgga 31620  
 cagactggaa tctgcacagc attgagcggg ccgacaagac tagcggccgg aaccgcaccc 31680  
 tcatccaggg ccacctggac ttcgtgatgg acatcctggt gttccactcc tcccgccagg 31740  
 atggcctcaa tgactgtatg cacaacaacg ggcagtgtgg gcagctgtgc cttgccatcc 31800  
 ccggcggcca ccgctgcggc tgcgcctcac actacaccct ggaccccagc agccgcaact 31860  
 gcagccgtaa gtgcctcatg gtccccgca cctcactccc tcgttagatc aggctggttc 31920  
 tgggagctga cgctgaaagg agcttctcat ctgggggttc tgggtgtaca tagatggttg 31980  
 ggtaggttgt gactgcaca agctgcatga tgctacctgg ggggccaggc ccaggctgga 32040  
 tggacttggt gcttcacag gacatagata aatggccaaa actcctcagc tgggaaggctc 32100  
 tgggcaggat ctttgggtgt gaaaaccagt cacaggggaa ggggtgcttc tcatactgcc 32160  
 agcacagtgc tgagtgttt ccatagcgt cgtttactcc tcaagcctgg aggggtggga 32220  
 gtagcatggt ccatttcac gtacaaggaa ccgcatgcac agagagggtg ggcaacccat 32280  
 ccaaggccat acaactgggg tgggttgagc cggggttgac tgtggcaggc tggctcaaga 32340  
 gtccctgtc ctgaaccctt gccaggcagc ctggcatcag ctgggggaat ttttgccctg 32400  
 acccttgga gcaagtgggc ctctttgttc tcatgtcagt gatgagaaga gtgactttcc 32460  
 tatggccct ctggagtaca ggtgtttcct gttggcgggc tcttccccca tgacatcagc 32520  
 agcgagctgg ttatgattcc ctacgcagaa cttgatagtt tataaagctc tttgtcatcc 32580  
 aggccccgtt ggagtctcac gcagacctgg tcgcaggcgg ggctggctct gcctgtccca 32640  
 gctgcatgga tggggaactt gaggcttgca aagggttaagg ggctgttcga ggcccaggct 32700

ggcaggagat gggcctgggc cagagtctgg gacttcccat gcctgggctg tctttggtcc	32760
tgttgctcac catccctccc tggggccatg accttagaga gccaaatgga ggtgcaggta	32820
accacggca aggaggggtt gccatgactc agagtccccg tcctgtggcc ggcagtacct	32880
ggtgcaacga cttggatttc agaccagcca ctgtagcccc ctgacgggtgc gctcgaagtg	32940
ccacagcttc tgaagccagg caggactcag gccaggagac tctgttagct gttgagaggg	33000
agaggccaac ggatgttctg gttctgctag agagctgggt cttcggatcc tggtagcagt	33060
gcactgagag gagggccagc ttgattctgg ggctgccttg tggtagcatg tgctgctcac	33120
tgacaccctc gaggagtgtc ttctctcggg cttgttgact gtgcccgggt ttccgcagtt	33180
cactggtgca cacataggca catagcaaac cgcacacaca gtcgtgggta tgagtctcac	33240
tacattccac caccagtgtt cactaccatt acctgccttc cgtcttaagt gttcatcatt	33300
taaaaataaa tttattgggc tggacgcggt ggctcatgac tgttatccca gcactttggg	33360
aggctgaggc gggcagatca cctgagggtca ggagttcaag accagcctgg ccaatatggt	33420
gaaactccat ctctactaaa aatacaaaat tagctgggca tggtaggggca tgccataat	33480
cccagctact caggaggctg aggcaggaga atggcgtgaa cccgagaggc agagcttaca	33540
gtgagcccag atagcaccac tgcagtccag cgtgggcaac agtgcgagac tccatctcaa	33600
aaaaaaaaata aataaataaa agaaaaataa atttatgac tatttcaaaa ataacacatg	33660
tactttgaaa cagcagagac acatatgaca cggagaatga aattcccat agcgcacccc	33720
caagagacag ccctggctcc cccgtcttcc cgtggacct ccagcggggc agatgctgag	33780
ccgcctgttg tcgagtggcg tgctatcccg tcctccagct cctctgtggc ttacagacac	33840
ccacctgcag ccctgtcttt gcctcctcta gcgccacca ccttcttgct gttcagccag	33900
aaatctgcca tcagtccgat gatcccgac gaccagcaca gcccgatct catcctgccc	33960
ctgcatggac tgaggaacgt caaagccatc gactatgacc cactggacaa gttcatctac	34020
tgggtggatg ggcgccagaa catcaagcga gccaaaggac acgggaccca ggcagggtgc	34080
ctgtgggaag ggtgcggggg gtgcttccca aggcgtcct cttgctgggt tccaggctgc	34140
tgccctgtc cttagcagag ggaggaaaca gaggatggct ctgggtgaat gatgacttg	34200
gcttcogatta tgtagtcaca gggtagtacc ctgagatgcg tggaacccc agactgtgat	34260
tatatgtaga aactgggttt cccggttgt taagtagtca tggtaggggt agacccaca	34320
ggacttttgt cttttcaaga aagaaaatgg tcgtgtgtca tgcaggggta gttggtactg	34380
gttaatccag gtttatcctt tattttgtgg gaactgtaca gtcatttctg ctacaatgct	34440

gtatatgctc	ttctgaaaga	cacctatgca	aaatcgaca	gtaaaaatga	cacaactcat	34500
agggaaaagcg	gggccagggc	acagccctca	aaatctccat	caatgacatg	taagaaaaga	34560
gaggaacctg	ggaaatagca	aagtgccttt	tgacacattaa	atggtttagct	atatcccaca	34620
atactgtgca	ttcgtaaacy	ttaatgctgc	aataaatacy	gcacttcacc	ttgggaagat	34680
ctggagttgg	cttatgagtg	tggaaggggtg	tagcgcatga	gtttttgtga	aacactggaa	34740
ggaggattgt	gggaaatcaa	atggaaagtt	ctcaccccag	gcgtggagaa	gagtgggtca	34800
tggccccagc	agtgaagcca	gggaggtcag	agacggaggt	gtgtgtgtgg	gtgtgaccct	34860
gcgcagttcc	ctgccggctg	tagttttttg	cattcgctta	atgtttctcg	tggaggaaat	34920
tgtgcatgag	caaagtga	accgtgctgt	gctcaaattg	tcctaataca	tcattgcatt	34980
ggaacagatt	ggcttttttt	tttttttttt	tttttttttt	tttttgagat	ggagtctcac	35040
tctgtcacca	gcctggagtg	cagtggcatg	atcttggtc	actgcaacct	ttgcctccta	35100
tgttcaagtg	attttcctgc	ctcagcctcc	tgagtaactg	ggattacagg	catgagccac	35160
cgcgcccgcc	cagatttgca	tttttgaaac	aactgctagg	ctggggcgcg	tggctcacac	35220
ctgtaatccc	agcactgtgg	gaggccgagg	caggtggatc	acctgaggtc	aggggttcga	35280
gaccagcctg	gccaacatgg	tgaaaccccc	tctctactga	atatacaaaa	atcagctggg	35340
tgtggtggcg	ggtgcctgta	atcccagcta	ctcaggaggc	tgaggcagga	gaattgcttg	35400
aaccaggag	gcagaggttg	cggtgagccg	agatcacacc	attgcactcc	agcctgggca	35460
acaagagcaa	aactccatct	caaaaaataa	aaaatagaaa	aacaagtgtc	gtagcggaag	35520
tgagcacttt	gcggagtcag	gcttgtgtgg	cctgttccac	aaatgatgtg	ctcacggtgg	35580
cctcaggccc	acctggagtc	tgacgcatgg	ggcacaacag	gttcattagt	gtagaattcc	35640
aggacaggcc	tggctcctaa	gcagccttct	tttacaacaa	ctgcagagcc	cgctgtatc	35700
ctagcacttt	gggaggccga	agtgggtgga	tcacgaggtc	aggagttcaa	gaccagcctg	35760
gccaacatgg	tgaaacccca	tctctactaa	atatacgaaa	attagctggg	tgtggtggca	35820
cgcgctgta	gtcccagcta	ctcgggaggc	tgaggcagaa	ttgcttgaa	ctgggaggtg	35880
gaggttgag	ggatctgaga	ccatgtcatt	gcactccagc	ctgggcaaca	gagcgagacg	35940
ccatctcaaa	aaaaaaaaaac	ctacagagcc	acacggcctc	tttctccacc	gagtgttggt	36000
gtgggagctt	gtgttattgt	ggtgaaatct	tggtactttc	ttgaggcaga	gagaggctga	36060
gcgcctggag	agactttcac	atgggtcgcc	atgtccgccc	tcggtttcgc	tgttgtgtctc	36120
cccatctgaa	ggctggtgcc	gtccagacag	gctggacgcc	cctttccacc	agatccttcc	36180

tcccgcagca gtttctagtt acgttgtact gtgaggtctg tgtccttggt tgatggcaaa	36240
agtcagccga attgaaattc agagccatgc ctggctccct ggagcttctc tcctgggcag	36300
ctgtgatcat tgcctctgct gtgggtgtggg tggtggaat ggattccttt catcttgctt	36360
gctacaggtg actgtcacgt ggagtccttt ggagagaggg acgtgttaat tgatggatgt	36420
ggctcccatg ctgagaaagc tcctgggcgt acattgcctt agagtttcat tggagctgcg	36480
ttcttttatg gtgtctgcta ggcagaagtg atgaagactt ggaagaaaac ccagaaggtt	36540
ttccacttaa tttggaaaat gtgcttttcc cctcctgtgt cttttgctaa ggtccagcct	36600
cctgcagcct ccccgctctg tggactctgg ctttgattct ttattaggag tccccctgct	36660
cccccaaaag atggtgtcta aattatcatc caattggccg aggttttggt ttctattaat	36720
tgtttttatt ttttattgtg gtaaatatat ataacataaa atttgccatt ttaattgttt	36780
tgttattgtt gtttttgaga cagggtctca cccagtgcc caggctggag tgcagtgggtg	36840
cgatcatggc tactgcagc ctcagcctcc agggctccag tgatcctctc acctcagcct	36900
ctctagtagc cgggactaca ggcatacact accacatctg gctgattttt tgtatttttt	36960
ttttattgta gagaccgct atgttgccca ggctggctct aactcctgga ctcaagccat	37020
cctcccacct caccctccca aagtgtctggg attacaggca tgagccacaa caccagcca	37080
ttttaatttt tttttttttt tttgagatgg agtctcactc tatcgcccag gctggagtgc	37140
agtggcgtgg tatcaactca ctgcaacctc tgcctcccag gttcaagcga ctctcctgcc	37200
tcagcctcct cccgagtagc tgggattaca ggtgcccac actatgcctg gctaattttt	37260
gtatttttta gcagagacgg ggtttcacca tgttggccag gctggctctg aactcctaac	37320
ctggtgatcc gccgcctcg gctcccaaa atgttgagat tacaggtgtg agccaccgtg	37380
cccggccttt ttttgttttt gagacagggg cttgcctgt caccagact ggagtgcaat	37440
ggtgggctct tggctcactg cagcctccgc ctcccaggct caagttgtgc acctccacac	37500
ctggctaact gtattttatg tagagacaga tttcaccatg ttgccaggc tgggcttgaa	37560
atggactcaa gcagtcacc cacctcagcc tcccaaagtg ctgagattac aggcgcgagc	37620
caccgcaccc agcccatttt acctattctg cagttgacag ttcagtggca ttcagtcagt	37680
tcacgaggta accatcactg ccattcatct ccagactact tcacctctc ggcagatgtc	37740
cgaaactgtc cgcattgaac acactcctca tctccctctg acagccacca ttctactttg	37800
tatctctctc tgccttctct aggtacctca tgtaagtgga attataccaa tatttgcctt	37860
tgtgtgactg gcttctttca tgtgacatgg tgtcctcaag gttcatctgt gttatagcct	37920

gtgtcagaat ttcttctctt aaagcctgaa taataacccg ttgtaaaggc tgggcgcggg 37980  
 ggctcacacc ctctaattccc agcatttttg gagtccgagg tgggcagatc acttgaggtc 38040  
 aggagtttga gaccagcctg gccaacatag tgaaaccctg gctctactaa aagtacaaaa 38100  
 ttagctgggt gtggtggcgc gcacctgtaa tcccagttac tcaggaggct gaggcaggag 38160  
 aatcgcttgt acccgggagg cagaggttgc agtgaaccaa gattgtgcct ctgcagtcca 38220  
 gcctgggtaa cagagtgaga ctctctgtct caaaaaaaaa aaaaatcatc ggatggatgg 38280  
 acggaccact tcttgttatt tatccatcca cgggtgctag gtttcttcca ctttgggtg 38340  
 tcgtgaataa ggccactatg aacatttctt tccgtgggtga aggttttgta ctagtgagga 38400  
 aaaggcgtgt ttgtggtgtt gcataggatt ctggtaagaa agtttgact aaccataagt 38460  
 atttgtacta cattaaaaatg aaagctcagg ggccgggcgc ggtggctcac gcctgtaatc 38520  
 ccagcacttt gggaggccag ggccggcgga tcatgaggtc aggagatcaa gaccatcctg 38580  
 gccaacatgg tgaaaccccg tctctactaa aaataccaaa aaactagcca ggtgtggtgg 38640  
 cgggcacctg tagtcccagc tacttgggag gctgaggcag gagaatggcg tgaacccggg 38700  
 agggcgagct tgcggtgagc cgagatcgtt tcaactgcact cgagcctggg caacagagca 38760  
 agaactcgtc tcacgcaaaa ctctgtctca cgcaagactc cgtctcaaaa aaaaaagag 38820  
 ttcagggttt atgaaactgg ccagccgct aaagtgtgtt gtgtgtgttt tgtgcccggg 38880  
 aggagtgtgg ccagggtgtc acgtcacaca gtacacgttt ctgagatggt ggttctccag 38940  
 actgctgtcc caaagtctgt ttttgcattt ggttcccaca gaccaccct ccacggtgag 39000  
 cctgattttg gccagggtag ctggaatctt gcttgtcttt cagcccggca gctgtaccag 39060  
 tccagggtcc acagctagtg gcttttagga aggaatttgt tcagttggct ttgacacatg 39120  
 gccccctagg gtccacagct ctgtagtgat gtggatgttg ttatctacaa agacacatga 39180  
 tcttcgtgt ccagatgaaa gtgatgatgt ctttgcagct gccagcaag gctgtgtgtg 39240  
 tgtgtgtgtg tgtgtgtgtg tgtgtgtgtg tgggtgtgtg gtggtgtgtg tgtgtgtatg 39300  
 ggggaggagg gcacccttct catctggggg tgtgtgtgtg tgggtgtgtg gtgtgtgtgt 39360  
 gcgcgtgtgt gtggtgtgtg gtgtgtgtgt gtgtatgggg gaggcaccct ttccatctgg 39420  
 gtccaagaga ctgggcctgg ggaagacgct tctttttatc tacttagaga ctttgtttta 39480  
 tttgtatttt tttgagacag ggtctcactc tgtcaccag gctgggggtat ggtgatatga 39540  
 gcatagctca ctgcagcctc ggccctccag gctgaagcga tctcccacc tcagccttct 39600  
 gaatagctgg gactgtaggc gtgcgtcacc atactgagct attgtttttt ttgtttgggt 39660

gggttaattt ttttgatac agatggagtc ttgctatgtt gcccagacta gtctcaaact 39720  
 cctgaactca agtgattctc ccacctcagt ttcccgacat tctgggatca caggtgtgag 39780  
 ccactgctgt ctccctgttt tattaactgc tgaaagacct agataaagaa agtctgaaaa 39840  
 gacttactat cagagcacca tctaagatg attccctctg actcaatgga gagggagggg 39900  
 agcttttctt tcaggcctgg gtggcaggag ccagggtgct ccaggcccca tttgccccag 39960  
 gccaaatcac tcgggaactt ggatgcagct gtctttcagg gtaacccaaa ggaaccagat 40020  
 ccccgaggc agtaggcttc tgggctgtcc tctcctcta cgtcagctca gtaagagccc 40080  
 ttcaaggga tgctgtgtcg gagggcccaa aagcccaggc tcctccctga gatgcacagg 40140  
 gtgggctggg cttaggcagc gctcgagcat ctctggacg gtgacccag agagtgtgga 40200  
 gacggagagt ccttgagagt cactgagaga cgtggctgcc ctgccttccc aagaggggct 40260  
 ctgagtcatt cccacactc acctgcccct acccaccctc acctggcccc cagcctcacc 40320  
 tacccccaca tctgtaccga tccctttacc cgcaccttcc ctaccacccc tcacctcccc 40380  
 tgtaccttca cctccccac tcaccgccc ctgcacctc acctgtcccc caccttcacc 40440  
 taacccccac cctcacctgc cctccctca cctggcctcc ttccgttggg gaaggggtg 40500  
 taaggggcgg ccccaaaact gtctgtctg gtgccctgca gagaaaacag tacgtgaggg 40560  
 ccgcagtcca aaagcttgag tcttggaagg tggaggagac agggatgtgt tgggaagggc 40620  
 cccatggtct tggatccctt ctgactgtc aatggggcct tcattgggagc gccagtctag 40680  
 tgatgcacag ctgggtgccc ggcgggtggc tgaggaggcc taaagtccga ggcggcaaga 40740  
 gctcttccag aggctgttgt cctaactgct ctggcatact caggcgggca cgtagttagg 40800  
 agctgattgg agaggagaga ccccccacacc aatactggga tttgactttc aggctaaact 40860  
 tgagaagtgt ggcctctgct gtctgccag agctctccag ccagtgccca gggctctcca 40920  
 gccagtgccc gggggctctcc accagtgccc gggggtctcc gccagtgccca ggggtctccg 40980  
 ccagtgccca ggggtctccg ccagtgtca ggagtcttg tttctttgtc ttacagccct 41040  
 ttgttttgac ctctctgagc caaggccaaa acccagacag gcagccccac gacctcagca 41100  
 tcgacatcta cagccggaca ctgttctgga cgtgcgaggc caccaatacc atcaacgtcc 41160  
 acaggctgag cggggaagcc atgggggtgg tgctgcgtgg ggaccgagc aagcccaggg 41220  
 ccatcgctgt caacgcggag cgagggtagg aggccaacgg gtgggtgggg gtgctgcccg 41280  
 tccaggcgtg cccgcctgt cttatgccga atgccagcct ctacaggct ggggagactt 41340  
 tccacctggg gatccaatgg gtggctttcc aggtcccaa aagcaaacac aggtttttca 41400

cagccccgtcc gggaaagcag aaagcccca ggggctggaa ggggaaaggg ggagctctgc 41460  
 tgagagggtta caaggcagcg ctggccgacg ggagttgcag ttgatagggt ttgtatcatc 41520  
 cttgttaaac ttgaacctg tgcagaaatc ccttccacgg catgggggct gcctgttgac 41580  
 tcgctcctgt tccaccacag ggagctcctg ggcttcttcc tcccagaggc ccccgacgct 41640  
 cccacctgtt ggtcgtcaga gcttctgggt ggtgggaagg caccagagc cttgaggtct 41700  
 ccagagagaa aagccaggga aagagggaga ccgaaacca tgtgacatga aactcaggct 41760  
 ccaaactgag cacgggaacg tttggggaca ggagcgcgat ggcttctctc agatagctgg 41820  
 ggggctggca tgaagacggg agctacagcc agcacaggtc ctgggcccgg agcccagaga 41880  
 ttgagccctg actctgtcac ttactggcca cgtgacctg ggcggtggc atagcctctt 41940  
 ggagactcag tttcctcatt ggtaggagt acggccacag tggcgcgcc tctgcagcac 42000  
 acggggggct cgggtggcgg aagccccggg tctataaggc ggctgtgcag gagccagccg 42060  
 agctggtctc ccaacagcca gggctccggg gtccttagca gctgtggggg gcctgcacct 42120  
 gtttcccatg gctgctgtca gaaattacca gaagccagggt ggctgagagt aatggacact 42180  
 tgttctctca cagttcctga gggctgaagc ccgagatcga ggtgtgggca gggccctgcg 42240  
 ccctctgaag gctctgaggg aacctttggg cttctgggtg ctccaggcac cccttgactt 42300  
 gtggtcctgt cactccagtc tctctgtctg gctgcacatg gcgtggcctc ttctgtacca 42360  
 ttgaaggaca cttcagttgg atttagggcc taccctcacc cattgtggtc gtatcttgat 42420  
 ccttcatgac atttgtaaag accctgcttc caaataagct cacattctga ggttctgggg 42480  
 tgagcgggaa tttggagagc attgttcaac tagtatagaa tgtgacctgt cagcctcggg 42540  
 cagccctgag aggcaggggc tttccacagc ccagctgggt gccctgggct ccgtgctgtc 42600  
 cgaggagacg ccattccccac acccgctctt caccgcccac cctcccgcag gtacctgtac 42660  
 ttcaccaaca tgcaggaccg ggcagccaag atcgaacgcg cagccctgga cggcaccgag 42720  
 cgcgaggtcc tcttcaccac cggcctcatc cgcctgtgg ccctgggtgg agacaacaca 42780  
 ctgggcaagc tgttctgggt ggacgcggac ctgaagcgca ttgagagctg tgacctgtca 42840  
 ggtacgcgcc ccggggcctg ccctaaccgc agacaccgg ccttcattgt cagtaatggc 42900  
 agcagctgcc acattgtccg agacctgcc tgagcccagt gccgcgccag gggctttgtg 42960  
 tgtagcgtgt tttgtctca cactgacagc tgtaggctgg ggttctgagt gagccccaca 43020  
 gggcagaggg agaaaatgag tctcagagag ggtgagcgag ctgcttgggg cccacagca 43080  
 ggagatggag caggactgca gcctagctc tgccccagc acctgcgcaa gaagctgctc 43140



tgctctggac	tgtgttaggc	tgcgagggct	ggagagaaat	gagagttagt	gcttagagag	43200
ggggcgccagg	tcccatggc	ttttcctctt	atgatgaggt	agatgggtga	agggaggggc	43260
catgcttgca	ggggccagt	accgagggcc	gccgttgga	ctgatggcct	tcaccccgag	43320
cccagcccag	gtgggagcag	ggctttccga	gggcttgtct	tgggtcggcc	tgcttccagg	43380
gactctgctg	cagctcccac	ccctgtccaa	agcatggaat	ccccaggct	ccctggcagt	43440
cctgtcaacc	tctgtcctcc	caagctgagt	gtggggcaag	ttctggaggt	cagcactgct	43500
caggggggccc	cacgggctgc	ttgcaggggc	caaccgcctg	accctggagg	acgccaacat	43560
cgtgcagcct	ctgggcctga	ccatccttgg	caagcatctc	tactggatcg	accgccagca	43620
gcagatgatc	gagcgtgtgg	agaagaccac	cggggacaag	cggactcgca	tccagggccg	43680
tgctgcccac	ctcactggca	tccatgcagt	ggaggaagtc	agcctggagg	agttctgtac	43740
gtgggggctg	gcagtggggt	gggcaggggt	gcctctaaac	ccgaccctg	gaggaggctg	43800
gaggccagt	caagatcctg	tgtggcctca	gccaggcggg	ggtctctgcc	agatgccaac	43860
tgttgcccg	tgggggttcag	cgacatgtcc	gaatgtcccg	aggcctctga	ggttggtttc	43920
ttttgccgca	gaacaaatca	ccacgaacag	cgttttaaga	caacaccaac	tctttttttt	43980
tttttttttt	tgagtcagga	tcttgctctg	ttgccaggc	tggggtgccc	tggtgcaaac	44040
acagttcact	gcagcctcga	cctctggggt	taattaagt	aacaccttgc	ctcagcctcc	44100
caggtagctg	ggactacagg	tgggcaccac	cacacctggc	taattttttt	ttgtagagac	44160
ggggtttccc	catgttgccc	aggetgggt	gcaactcctg	ggcacaagct	atctgcctgc	44220
tgtggcctcc	caaagtgcta	ggattatagg	tgtgagccac	tggcctgaca	acaccacagg	44280
attgtctctc	agttctgtaa	ggcaaagtcc	aggcacagcg	tggctcacct	gggttctctg	44340
ctcaggggtc	cacggggcca	gaatcaaggt	gtcaggaacg	ctgggccttc	agcggagggt	44400
ctgtggagaa	attagcttcc	ttgctcactc	agcaggtagc	agttgtggga	tcgaggttct	44460
gttttctctc	tggttattgg	tcggggacca	ctctcagctc	ctagaggcca	ccacaggtcc	44520
ttgccccgtg	gccctctctg	cctcagcagt	gggggctccc	tgcgtcagtc	cctcccacac	44580
cttgagtctc	tctgatttgc	ttctaaaggg	ccctgtgatt	cggctcagcc	acctttagat	44640
taggttagcc	tcccctttga	tagactocaa	gtcggctgat	taataacctt	aatcacatct	44700
gcagaatccc	ttctgccaca	taaggtcatt	acgccgtgct	ggggactggg	gtgggaaatt	44760
acgggggtcat	ttaggattct	gcctgccact	gccttgctgt	gtcccagggc	ttgggggagg	44820
ggcctccaca	gctgggacca	cagtccttcc	tcccctccat	ggtaaccatc	tgaggattac	44880

ttgagaccag cctgggcaac atggtgagaa cccatcccta caaaaaatac aaacaaaaag	44940
ggaccagggt gggcttggtg gctcatgcct ataatcccag cactttggga gaccaagggtg	45000
ggctgatcac ttgaggttgg gagttcgaga ccagcctgcc caacatagtg aaatcccgtc	45060
tctactaaaa atacaaaaat tagctgggtg tgggtggcagg cgctgtatt cccagctact	45120
ggggagggtg aggtgggaga attacttgaa cctgggaggc ggaagttgca gtgagccaaa	45180
attacgccac tgcactccag cctaggcaat agagtgagac tccgtctcaa aaaaaaaaaa	45240
gggccagggg tggtagtgac aaagagaccc tatcccaaaa aaaccgaaca ctgaatcctt	45300
gagactgagt aaggacactg tgaaatTTTT ctgggtgggg cagggaacag agcgtcttct	45360
gtcatttctt ccacctgggt gtggtcagct ctccctccaa gctgcctcct cttcttctca	45420
ttgtccgggt gttggacaca tttggttaac tggatagaat aacgcgagtt cccagggact	45480
tgggccattt gctattttat tttattttat tttattttat tttatttatt tatttattta	45540
tttatttatt tattgagatg gagtttcggt tttgtcgccc aggctggagt gcagtggcgc	45600
gatctcggtt cactgcaacc tctgcctccc aggttcaagt gattctccta cctcagcctt	45660
ccaagtaact gggattacag gcacccacca ccataccagg ctaatttttt tgtattttta	45720
gtagagacgg gttttcgcca ttttgcccag gctggtcttc aactcctagc ctcaggatgat	45780
ccacgcacct cggcctccca aagtgcctggg attacaggca tgagccacca cgctggcac	45840
catttgctat ttttaattccc atgtgtatta gtgtcccacg gctgctgtaa caaatgacca	45900
caaactggat ggcttaaagc aacagaaatg gattccccca atgtgctgga gaccagaagc	45960
ctgcgaccaa actggtggga gggctgtgct tcctctgggg gctccaggga ggatctattt	46020
gttggccctt ccagtgcgtg ggggtgccagc gttccacact tgtggatgcg ccgcctcaac	46080
ctctgcccac cttcatgtgt ccactcctt tgtgtctgcg tctttacctc ttcttcttgt	46140
ctgtgttgcc tcttataagg acgtttgtca ttgggtttag ggccaccca aatcatccga	46200
gatgacctcg tcttgagatc cttaacctgc aaagaccctt tttccaaaaa aaggttatgc	46260
tcacagattc taggccttaa gacatgggtg tatctttctg gggggcacta tccaaccctt	46320
tatacaatga aagacgggaa gagggccagg tgtggtagtt cacgcctgta atctcagcac	46380
tttaggaagc tgaagcggga ggatcacttg agcccaggag ttacaagta gctaggcaac	46440
atgatgagac cccatttcta caaaaagtga aaaaaaaaaa aaaaaaaaaa aagccagggtg	46500
tgggtggctca cacctgtaat cccagcactt tgggaggctg aggcaggcag atcacgaggt	46560
caggagattg agaccatcct ggctaacacg gtgaaacccc gtctctacta aaaatacaaaa	46620

aaattatggc cgggcgcagt ggctcccgcc tgtaatccca gcactttggg aggccgaggt	46680
gggtgaatta caaggtcaag agatcgagac catcttggct aacacgggtga aaccccatca	46740
agatcacaag gtcaagagat ggagaccatc ctggctaaca cggtgaaacc cegtctctac	46800
taaaaataca aaaaattagc cgggcatggg agcgggcgcc tgtagtccca gctgctcggg	46860
aggctgaggc aggagaatgg cgtgaacccg ggaggcggag cttgcgggtga gccgagatcg	46920
ctccatgcca ctgcactcca gcctgggtga cagagtgaga ctccgtctca aaaaaaaaaa	46980
aaaaaaaaa aaaaaagaa aattagccag gcacagtggc aggtgcctat tgtcccagct	47040
acttgggagg ctaaggcagg agaatggcat gaacccggga ggtggagttt gcagtgagcc	47100
gagatcatgc cactgcgctc cagcctgggc gatagagcaa gactctgtct caaaaaaaaaa	47160
agccaggcat ggtggtgcat gcctgtagtc ccagctactc aagaggctga ggcaggaggg	47220
ttgttcgacc cacggagatc aaggctacag tgagccatga tcgcaccact gccctccagc	47280
ctgggtgaca gagtgtgacc ctgtctcaaa gtaagtaaag aggaggagag acaagtgggc	47340
agttcagact gatggtatgg gcacagtaga gactgggtgca gacaggctgg cctgtgatgt	47400
caagcaactt ctgtaattgt ttccggcatc catttgtgtg tcaatttccg tgtcagtagg	47460
aagactctgt aggtgccaa gaggaataag tgggaggatc ctcccagaga ggccgggcct	47520
gcaggagggc cagttctcat gagttctcat ttggccccta ccctccaggc tgtggttctg	47580
agggtggaga cagagcctga cctctgtttg tcttgttttg tctttgcagc agcccaccca	47640
tgtgcccgtg acaatggtgg ctgctcccac atctgtattg ccaagggtga tgggacacca	47700
cgggtgctcat gccagtcca cctcgtgctc ctgcagaacc tgctgacctg tggaggtagg	47760
tgtgacctag gtgctccttt ggggtgatgg acaggtaact gattctctgc ctgctaggct	47820
gctgcctggc atccttttaa aatcacagtc cctgtggcat ccagtttcca aagctgattg	47880
tgtcttcctt tgccctcctt tcttttctac tatgtgcatt cggtgctatg aattttcctc	47940
taagtactgc gtttcctgca tctcaciaat tttgttacat ttccattttc aggtagtttg	48000
aatattttta cacttctcct gagatgacat ctttggetca tgtgttattt agaagtgttg	48060
cttagtttct aaagagttgg ggcttttcca gctgtctctc tgcaactgat ttctaattta	48120
attctactgt agtctgagag cttattttat atgatttctg ttatttttaa tgtgttgggt	48180
gtggtgtttt tgttgttatt gttttgtgt ctttttgttt tgttttgctt cgtttgtttt	48240
gtttttgaga cagtgtcttg ctctgtcact caggctggag tgcaatggcg cgatctcagc	48300
tcaccgcaac ctctgcctcc cgggttcaag tgatcctctt gcctcagcct cctgagtagc	48360

tgggattaca ggtgcacgcc accatacceca gctaattttt gtatttttag tagagacggg	48420
gtttcaccat gttgggcagg ctgggtctga actcctgacc tcgtgatccg cccacctcgg	48480
cctcccaaag tgctgggatt ataggcgtga gccactgtgc ctggccatta ggtgtgtttt	48540
atcaccacgc atcatgcagt ttatcttggg gaatgttctg tgtactcttg aaaagaatgt	48600
ggattctgct gttgttgggt ggagtgttcc agaaacatca attagatcca gttggttaat	48660
agtgtctatc aggttgtctc tatccttccct tcctgactgc ctgcttgagc tgtcagttat	48720
tgacaggggt gtggagtctc caactctaata ggtggatttg tttattttctc ctagtagttc	48780
tatctttttc tctccttcta ccttgatcc tcttctcccc ctagggcttc ctggtgttag	48840
tgggtgggaga gtggggtagt gaagaacctg gactttaggg ccaaagaggc cagggttcaa	48900
atcctggctc tgtaacttcc cagttgagtg accctggctg gtgcctgaat ctctgtgagc	48960
ctccacttcc tcctctgtga aattgagagc acttacctgg caggctgtca tgggcatcaa	49020
gtaacagggc actccacctg gacctgaca cgtgatgcac aggaatgcc gctgctatgc	49080
catgggtgtg gcagtagtaa taaagtgacc atctgtatcc tcaccacagt gaagcctgtc	49140
cagggctttc tctcctatgc ccccatgcct ccaggtggcc ttggatcctg ttggttctgt	49200
gctctgtca gcgaccttcc tcccggtgga gttcctgggg gttcagcttc atcctacaga	49260
cagcagcaca cactggctgt gcacctttt tttttttttt tttttttttt tgagatggag	49320
tctcgctttt ttgcgcagg ctgaagtga gtgggtgat cttggctcac tgcaacctct	49380
acctcctggg ttcaagtgat tttcctgcct caccctccca agtagctggg attacaggct	49440
cccaccacca cgcccggtta atttttgtat tttcagtaga gatgggtgtt caccatgttg	49500
gccaggatgg tcttgaactc ctgaacctcag gtgatccgcc cacctcagcc tcccaaagt	49560
cagggattac aggcgtgagc caccacaccc ggagtgccgg ttgttttttag cagtttgtct	49620
tgttcctgga gagactggct cctgcccagg agctcgggga gtagggccgc ggggtgctgc	49680
ctcacacctc gaggttggcc gtaagcagag gggacatttt gtgactgtcc cctcctgag	49740
cttcccagca gcttttctcc aagttacagc ccaaaagctc aggtggattt gcaacccaac	49800
ggtgtctgtg cactccccc tgatgccga actgccctgg ccaagaaacg gggccgtcag	49860
aacgctgcac taactgcagc cttgggcctc catgccagag gccatgccct tccatccacc	49920
acccctggc ctgggccctg ggccctcctg gctcgggaac tccaggcccc ttcctcacgg	49980
ctcgagagac gtgtatttac cgcacagggtg cttgtcatte tcttgtggcc tcttctccag	50040
ggagatcaca gaaggacagg gcctcactga ggtctcggac atggaccctt tgatagtggc	50100

aggagccagg ctgggcaaga ggcggccaca gtcacctcag cagtgccatc accaccgcca 50160  
 ttcagccctt ccctgagccg ggcgcgcccc tggtctctggc cccagtgtcc cagttacagc 50220  
 tcacaggagc ttgtggtgcc cagcggctgc ttctgattga gagtgcaggc cggaggcttt 50280  
 gggaggctga gaggctgctc ggtttcacia ctgctgaggg agacttgggc tccatctcag 50340  
 gtatgcccc tctgccttc aacctccagc caccggtcct cctgtgtccc catggccagg 50400  
 caggcttgc agacatctgt cgttggtcc tctcagccgt cgtgggctga cctggcacg 50460  
 tctctctgtg gctgagccca gtggggacag ctgcttctt ttattacct agaactctcg 50520  
 tctttgatca ggccccctc cctatgccac acagtcctg tcaactcggg gagcccagta 50580  
 gtcattggga aggcctgcgg gttccaaaca tccaaaggct tgcgtgcagc atgacagctt 50640  
 gaaaccgatg ttttttacct tgatcagatt tcagcttggc gggggctttg ctcagctttc 50700  
 agtgaggcct gggccgattt cccagcatcc cctcctgagg ccagcctctg tttcctgtga 50760  
 ttttctgcac aaagtgggag ggaggagtcc taggaaatgg ggggccacct cgaagcctag 50820  
 gcctcctctg gcttctctgt gccagtgcc ccacgctttg tgtctgtgtc cccagcccat 50880  
 gggactctgc tattccctga gtgctgccgc atgccagcc cgcactgagg acgtggagcc 50940  
 ccgaggggca ggatggctc catggtcaca cgtaggaagt ggctccacc ctccgatgat 51000  
 cctctccctc ctccctttca gcgcctccc cgggggtgtc ctcagccctc ctgcctgtgc 51060  
 tttgtcccg tttctgcagg cgctgggac gtgctgacag gtctctgcc ggctcctgcc 51120  
 ttgctatgcg cacgctggc accacagagg cctggccctt cttctgtagc agtcccacac 51180  
 ccgcaacagg tgtggctgct gaccacctgc tttctgcccc tctggtcctg aggagggcgc 51240  
 agtgggcact caggcgtggc tgagcagatg tgtgttgccg ggaggaggaa ggactgctcc 51300  
 agtcagggt gaatttccca cccggagcat ttctgctgta tttggtgtag cgcctgctgc 51360  
 ttaaagctct gattcccagt tggcaccctt tcccttctgc attgaaaaac atacggatgc 51420  
 atgtcttctt gcagtgaatg tgtattctcc cagcctctct tctgggttgg ggctggaggc 51480  
 ggagcggcac acaggagccg cagcgatgga ggatgtgcgg gtgcagcacc ccgtacagca 51540  
 gggatgccaa acccgcgctg agtccctctc aacttctgct ttgaagccca gtcacgccat 51600  
 tgcttgggtt ttgctgggag gggctgcgtg tgatgttctc ctctgtccct cccccagagc 51660  
 cgccacactg ctccccggac cagtttgcat gtgccacagg ggagatcgac tgtatccccg 51720  
 gggcctggcg ctgtgacggc tttcccagat gcgatgacca gagcgacgag gagggtgccc 51780  
 ccgtgtgtc cgccgcccag ttccctgctg cgcgggttca gtgtgtggac ctgcgctgc 51840

gctgcgacgg cgaggcagac tgtcaggacc gctcagacga ggcggactgt gacggtgagg	51900
ccctccccgt caaggtcttg ccaagacctt ggccctgccc tccgggatac gagcttgggg	51960
ctgcctccgg cctcacagga gtaggggctc tgaaaacctt tgcttgacag gagattgcca	52020
agtctgtctt ttaggccccaa caaggaaaac tctgcagttc caccatcctt gtcccaccag	52080
gtagtgtggc ttgaaggcag actgtgaggg tctatctcac cttcctgcat taggtcagga	52140
gtttcacaga aacctgaggc acattcaggg gtgggctgca gaggtccatg gctcacacc	52200
tggaaaatcc gccccaaaa gacagtgttg tctccactga ccagtcttg ggatagtgt	52260
taagcctgag tggtttctat caacatgtag aatcaggagg tataaagaga ttgtctcagg	52320
catcctgggc cctctctgac cagcaggatc ttcctttaga tcttgacagt gaaacacatc	52380
tcttctgtgc ccctgtgag ttttctttca ttcattcatt cattcattca ttcattcatt	52440
cattcattcg agacagagtc ttgctctgtc acccaggctg gaggccctg gtgtaatctc	52500
ggctcactgc aacctctgcc tccagggttc aatcgattct cctgcctcag cctcccaggt	52560
agctgggatg acagggtgcg accaccatgc ctggctaatt tttgtatttt tagtagagac	52620
agggtttcac catgttgccc aggtcgtct cgaactcctg acctcagggt atccgcccgc	52680
ctcagcctcc caaagtgttg ggattacagg catgagccac cgcgcccggc ctgagttttc	52740
cttttatgaa ggacctgctt ggttggttgc ctgccacatg ttgtcagcac catgggcccc	52800
ggactgctga ggagctgttg atgccctcgc tctcccagag ccaccggctc tgtagataa	52860
ttcacatgca gtctggccac tgctcctacgt cctcattcac aaagagcaga catttcgtag	52920
aagatgaggg cctgggagta acctccctgc atgtttttct ataaaggcat agtggttaag	52980
tccttcacgc tcattgacca ttggagaatt ttatggaggc tgtagactag gggctggtaa	53040
actaagggcc caggggcca atccagcctg ccacctactt ttgtaaataa agttttcttg	53100
gtgcacagcc atgcccattc attcatttgc acaatgtctg tggctgcttt catgccccaa	53160
gcaagagaac tgagtggta tgctggagac ctacggcctt caaagcccca gacctcacgt	53220
ctggcccttg acagacagag cttccccagc cctgctgcgc atcctggccc agcatgtgct	53280
gtgtgtgtga tttcagcttg caggagccgt ggtaggaat tgcctctgtg ttggtccatt	53340
ttgcattgct atgaaggagc acctgaggcc gggtagatta tgaaggaaag aggtctgtct	53400
ggctcatggt tctgtaggca gcaccagtat ggcacccgca tctgctcagc ttctagttag	53460
gtctcaggaa gctttgactc atggtgaaag tcgaagcggg agcagggtgca tcacatgggt	53520
agagagggag caacggagag agagagagag cgcctctccc tcttgccctc accttgagag	53580

gagatgccag gctcctttaa gtaaccagct cccatgtgaa ctcacagtga gagcccattt	53640
gctactgcgg agagggcacc aggcattctgc tcccatgacc caaacactgc ccaccaggcc	53700
ctacctccaa ccttggggtc atattttatt ctgttctatg ctatgctatg ctatgccatg	53760
ccatgccatg ccattgctatt cctattctat tatttgagac agaattctgc tctgttgccc	53820
aggctggagt gcagtggcat gatcttggt cactgcaacc tccacctccc aggttcaagc	53880
gattctectg tatcagctc ccgagtagct gggattacag gcacacacca ccacaccgg	53940
ctaatttttg tattttcaat agagatgggg ttccaccatg ttggccaggc tgggtctaaa	54000
ctcctggcct caagtgatcc acctacctg gcctcccaa gtgccatgat tacagatgtg	54060
agtcactgcg cccagtgagg gtcacatttc cgttgagatt tggaggggca gacgttgagg	54120
ccatctgagc cccctcgtec cgctctagct tctctcccg tgtgccccg ggtgctgggtg	54180
gcaggccctt acgcgggttc tggtgcatg ctctgttcca gaagctttct tccctgcttg	54240
gttaccagaa aatcatccca tccattacaa ggacagggtc cccttatctc ccattcccag	54300
ggcaggacac cgggggcagg gcagggtggg aactgagcaa gttctctggg ggcaggcgtg	54360
gctatggctc cctctgggtg ggcgtctggg gaggggtgga ggcagccgtc agcgcctgg	54420
cttgcctctc ctccctggcc agagactgtg gccttggtg gctcccgtgt gggctgcctg	54480
cacctccagt gggttgtgct cctccctc cctccctc aagctctgct gagcaccact	54540
gccttcaca gccccactc tcgggaggcg aggcctctcg tggccattcc tgccttggc	54600
accaccccc ccaccaacct ggtagagcct tgggcgggggt ctgttactcc ttgcatggcg	54660
tagacctccc cacagtaggc acctgacaca tacctcctgg ggggcaggca ggaggtgcgt	54720
tgaggtctca gccctggcag tccctccct gcgtggcata ggctcgcca cagggtcatc	54780
gaggggtgggt ggagactgta ctagaccact ccccgctggt cctagaaagg gtcccatctg	54840
tctgctctct gtttgagtc cagaccttg ttgctgtgcc ctgcatgggt ggctggggg	54900
cacctccag cctctctgag tgcattggct ctccttgag ccattctgct gcccaaccag	54960
ttccggtgtg cgagcggcca gtgtgtctc atcaaacagc agtgcgactc cttccccgac	55020
tgtatcgacg gctccgacga gctcatgtgt ggtgagccag cttctggcac ggggaagggg	55080
cgtccgggct gggttcccc aggaacgtgg agtttagggg aggagacgtg cttttccagc	55140
ggggctgggg gctgtgtggg agactcaggc ggctgggagg ctccttgagg gaggcaggga	55200
agcctttccc agggcagcgg ccaggaggac agactgtgag ctgtgggctc ggcggctaca	55260
gagtctgcct cagtgggcgg ggctgatggt gtccagggtc ctgcagcacg caccaccca	55320

cgggaccttg ctgagcagcg tctgtcaggc agcaagatta cccgagggct gcagtgggtcc	55380
tgttccctgg cagcttactg tctggctgag gaggagtgat gttcacatat gcacacatgt	55440
catgtgcaca cacatgtaca tgacaacatc ccacatgctc ctcaaatagc atgacctgta	55500
cagtcacgga tatagggcct aggggatagg aggccaaagac agtcagggaa gactttccag	55560
aggcagtggc tectgaaagg ctgtctgatt caggcaggaa gggagctgag ttcagatagg	55620
aagtagcaat gagtcattgt gtctggggac atggccactc ctctcgctgca gagggacctg	55680
ggctgagagc tectctctta tggctgcagt cgggagagaa gtctgttggg gggagaaggg	55740
ggcttccctca agggactccc tgtgcccttt ggcaccttcg tgccagggtca ggcttgaggc	55800
ctgaaggcag tgggtggggc caccaagggt cgctctctct gctgggcaag tccccagttc	55860
gacgggcctg tgccgtgggc cccagctgtg ggggcgctgt tgatgcgcag ccaggcctcg	55920
ccgccagagc ccgcacgctt ccattccgct gacttcatcg acgccctcag gatcgctggg	55980
ccggccctgt gggagagtga atgtggcttt tgccaaagt gagtctggag cctggaaact	56040
tccctatggg cagccttgat agtggagtgg cccaaggagc ccacccagcc gacctgccc	56100
ctcccgctggc tgggtgggcg caccaggggc tgccctggctt tgctcgttca ccaacatcac	56160
ctgggctggc cagggcgcgc tcaattctgc caccaccgag ggccctgggc gaaggagtga	56220
ataccaggct gccttggcag ggatgtgttg agggctgtgg ggagtcggac agcggcgggg	56280
gtcagaggag gaggaggggt caccgtgcag gctgaagggc cacgttaccc tgaggttggc	56340
caggctcccc aggcctagcc tcccagctcc cccactttct cccaccctc caccagtggc	56400
aaagccagcc ccttcagggc gcacggtgtc tgcccccaag gagggcccat tccgttgggg	56460
ttaatgttgg ccacctcttt ctgtttgtct ctggcagaaa tcaccaagcc gccctcagac	56520
gacagcccgg cccacagcag tgccatcggg cccgtcattg gcatactcct ctctctcttc	56580
gtcatgggtg gtgtctatct tgtgtgccag cgcgtggtgt gccagcgcta tgcgggggccc	56640
aacgggccct tcccgcacga gtatgtcagc gggacccgc acgtgccct caatttcata	56700
gccccgggcg gttcccagca tggccccctc acaggtaagg agcctgagat atggaatgat	56760
ctggaggagg caggagagta gtctgggcag ctttggggag tggagcaggg atgtgctacc	56820
ccaggccctc ttgcacatgt ggcagacatt gctaatcgat cacagcattc agcctttccc	56880
actgagcctg tgcttggcat cagaatcctt caacacagag gcctgcatgg ctgtagcaac	56940
ccaccctttg gcactgtagg tgtggagaaa gtccttgga cttgacctc atattctagt	57000
aggacatgtg ctgtgttgtc cacaaatcct catgtaccct agaaatgaat gtgggggcgg	57060



ctgggctctc tccagagctg aaggaatcac tctgtaccat acagcagctt tgtcttgagt 57120  
 gcagctggga tttgtggctg agcagttaca attcctacgt ggcccaggca ccaggaacgc 57180  
 aggctgtgtt tgtagatggc tgggcagccg caccgcagag ctgcaccatg ctggtttgta 57240  
 tcacatgggt gaccatggta tgtctaagaa ggtggagtcc ctgtgaggtc tgcagggtgcc 57300  
 cccacagctc caggccacct tgaggattgc ctctgcctgc ccagccctga gttccctctc 57360  
 ccctgtcctg tcccactgtc accccaagcc ggctcattg ggagcctgtt ggatggcagg 57420  
 gtatagatgt aacctgattc tctctgggga gcggggttat ctggcttctc aagagctcct 57480  
 aggagcccac agtgggtggc ccatcacagt cgcagcagcc ccagagaaac gcggccctgt 57540  
 ctgttcctgg cgtgctctgt gctgccccgc ctgggttccc tgccccagtc gcaggccctt 57600  
 tggaggaggt accatgtgtc tcccgtttca cagatgagcc ccggggagct cactctagta 57660  
 gtggccagag aggcctgcgg ctccaggagc ggggcacatt tccaacagga cacaccgccc 57720  
 tggctctgagt ctctgtggta gtgggagcag aggagagcgc cctatgtctg tggggcggct 57780  
 tggctgagcc tggaagccac ctgacctccc ccgtcccttc cctgccaggc atcgcatgcg 57840  
 gaaagtccat gatgagctcc gtgagcctga tggggggccg gggcggggtg cccctctacg 57900  
 accggaacca cgtcacaggg gcctcgtcca gcagctcgtc cagcacgaag gccacgctgt 57960  
 acccgccggt gaggggcggg gccggggagg ggcggggcgg gatggggctg tgggcccctc 58020  
 ccaccgtcag tgctggccac cggaggcttc ccgggttctt gggggctgtg ccaccgcctc 58080  
 tgaggcatgc ttgctttctt cccctttcaa acccttctgc ttccttcttt aatgacattg 58140  
 ttgattgtgg ataactgaa aactacacaa aaatataaag agccaaaatc tcacccaaat 58200  
 ccacctcta gagtggctgt tgggctccgt cagcatccag gcggccgtct gtgttccgca 58260  
 cgcccagcc catcgatagc cgctgcacc aggcctgtct gccctctgtg agcctcccca 58320  
 cagggttccc tccacaaaca ccctgttctc ccaccaggg ctggctgctt cctggaaaac 58380  
 agctggatgg ttttgtgcat gacagacaaa cacagggtga ttttctgtgc taaaatactc 58440  
 cctggagctt ttggcagggt gaggggctgg ctccagctga gccacgcctt gagtgaatg 58500  
 actgtgagga gaataaactg ccgctgccct ccaggatcac tggggctggc tggggagaac 58560  
 ccccgcttct gggagcacag tcccaggatg ccaaggcgag cttggtgccg agatgtgaac 58620  
 tcctgagtgt aaacagcggg ggctgacttg acatgctttg tatgcttttc atttgttctt 58680  
 gcagctgtat gcccctaagg tgagtccagc ccccttctgc ttcctctggg gcctcgccag 58740  
 tgagccccac cttgctgggg ctgggttctc ctgcccttct gggtatccct cacatctggg 58800

gtcttgtctt cttgttttct ttttcttttt tttttgagac ggagttttcac ttttgttgcc 58860  
 caggcttcag tgcaatggtg tgatctctag gctcaccgca acctctgcct cccaggttca 58920  
 agcagttccc ctgcctcagc ctccctagta gctgggatta caggcatgtg ccaccacgcc 58980  
 cagctaattt tgtattttta gtagagatgg ggtttctcca tgttggtcag gctgatcttg 59040  
 aactccctac ctgaggtgat ccgcccacct tggcctccca aagtgtctggg attacaggcg 59100  
 tgagccaccg cacctggcct ttttcttttc ttttcttttc ttttttctga gacagggctt 59160  
 cgctctgtca cccaggctgg agtgcaatgg tgtcatcatg gctaactgca gcctctacct 59220  
 tctaggtctca agcaatcctc ccatctcagc ccctaagtag ctaggactgc acgcatgcat 59280  
 ccccatgccc agctaataatt tacatttttt gtagagatga agtttacta tattgcccag 59340  
 gctgggtctcc aactcctgga ctgagcgat cctcctgcct cggcctcccc aggtgtctggg 59400  
 attacaggcg tgagccaccg tgccctggcct ggggtattgt cttcttatgg cacctgactg 59460  
 tgggtgggccc tgggaaggaa gtagcagaag agggttcttc ttggtttcct ggacagtaac 59520  
 tgagtgttct ggaggcccca gggcctggct ttgtttaggg acaaaggga ctggtaacca 59580  
 gaagccgaga gtttaaaccac ccactgcctt tcttccctgc tctgtctgct gcaaccacgc 59640  
 ttaaccagcc aggagtgtta ggaacccaag caggggcccc gagcacacag caggcagctc 59700  
 acgaattctc ttttctgtt ctcccttggg agctgggagg atcttaataa ggcaataaga 59760  
 gatggcactg agcagccagc taatttttta aatcacttta ttgtttaacc atatgactca 59820  
 cccacttaaa aaagggtaca gttcagtggg ttttagtgta ttcacagatg tgtgcaaccc 59880  
 tcaccacagt taattttaga acattttcct gcccctaaaa gaaactctgc atgaagccag 59940  
 ctgtttttta attagcaaag ttattttgca tcctttaaat atatgttcat ggtacaaaat 60000  
 tcaaaagata cagaagagtc tgcagtccaa agagactccg ccccatgac gccaagcagg 60060  
 catccctggg aggcattggc tctgcagtg tgtttcttct atgtcccccc aggggtcatc 60120  
 tgtacatatg caagcataca agagcgtgga ctttgttttc caagccagaa gataattgta 60180  
 gatttatgtg cagttgtgag aaagagcaca gaccatttta tcctctgcct gggttcccc 60240  
 agtgtgcct gccatcttgc atgacttcca ttcctatcat aagcaagaca ctgataacga 60300  
 ttctttcacc ttattcagat tgacataagt gttttttgtt tgttcttgag acaaacttcc 60360  
 tctgtcacc agtgggagtg cagtggcaca atcacagctc actgcagcct caaactcctg 60420  
 ggctcaagcg attctcctgc ctgagctccc tcaagtagct cagatggcag gtgtgcacca 60480  
 tcatgccagg ctaattttta aattttttgt ggaggtgagg cctcaactaaa tttcctgggc 60540

tagtcttgaa ctctgagct aaagtgatcc tctgcctca gcctcccaaa gtggtaggat	60600
tacaggcatg agccactgcg cctgggctga catatgtgtt ttcgtaagcc cgaaagatag	60660
catctgaaga gtcaacattg agccttgcc tttgtgcta acgatgtata aaagtgtctg	60720
ttctgagcat ttcggaggct cccagctgcc gtgtgcaccc tgcctagagc tctaccgtaa	60780
cccatctccg ggaggagggtg ctattgtttt cctcattttg caacaaggag gctgaagaac	60840
tgagcatgaa cactggcct gggtcgttcg gttggtaggc agtggggcca ggccatccaa	60900
ctcacaacca cttctactc tgcctccccc gcacctgaa gtttgttctg ttttgaggac	60960
acagccgtca cattcttggg ggctgaacag cactccttgt caggcgtggc tgggccccca	61020
ctggagggca tcatggctct ctctctgct gcggttgaa cttggctgtt tcaaccactc	61080
ctgccaagtg gccctctgaa agggacagtc catcttttct cagcagaggg ccacactggc	61140
aaaacggctc ctggcaccct ttctctccac ctgtctaata tagagtaaaa atggtatcat	61200
gttaagatct tcatttatat ttattttatc atgaatgatg taagcatcat tttgtgtgtt	61260
taagaacctt tgggcccagc gtgatggctt gcagctgtaa tctcagcact ttaggaggct	61320
gagatgagcg gatcacttga ggccgggagt ttgagaccag cctggccaac atggagaaac	61380
cccgtctcta gtaaaaattt aaaaattagc cgggtatggg gatcccagct acttgggagt	61440
ctgaagcatg agaattgctt gaacatggga ggcggagggt gcagtgagcc gagatcgcg	61500
cattgcactc cagcctgggc gacagagcga gactctgtct caaaaaaaaa aaaaaaaaaa	61560
aaaagaaaag aaattatcaa tctctcttt tatggcatat atatatatat atatatatat	61620
atatatatat atatatatat tttttttttg gttatgttca gaaaggcctt cctgctctg	61680
atcataaaaa acaacttatt ttcacactct ctctcttttt tttttgagac agagttttgc	61740
tctgttgcc caggctggag tgcagtggcg caatctcagc tcaactgtaac ctccgctcc	61800
cgggttgag tgattctct gccttacctt cccgagtagc tgggattata ggcatgcacc	61860
accatgctg gctaattttg tacttttagt agagacgggg gtttctccat gttggtcagg	61920
ctggctcga actcgcgacc tcaggtgatc caccacctc gcctcccaa agtgctggga	61980
ttacagacgt gagccacat gccagccca cactctcttt cttaacgtcc tctctcttc	62040
gttttacgtt cacatcttta attctcttg gatgtaatta gatttgatga gcaagggtggg	62100
catccagctt gtttcttggc tgatggctta tgggtggcgt gaattagtcg ggtctatca	62160
ggaggcagaa actctatgag aatttgaaca gagaaagttc cgtctacagg cttattacca	62220
gggactggaa tagcagaaat tgaacagtga gatgtacaga gaactctaag aatgcaggaa	62280

taggccaggc atggtggctc acacctgtca tcccagcact ttgggagacc aaggcgggtg	62340
gatcacctga ggtcaggagt tgcagaccag cctggccaac atagtgaaac cccatctcta	62400
ctaaaaatac aaaaaaatta gctgggtgtg gtggcgcatg cctgtaatcc cagctactcg	62460
ggaggctgag gcaggagaat cacttgaacc tgggaggcag aggttgcagt gagccgagat	62520
catgccactg tactccagcc tgggtggaag agcggaaactc tgtctgaaaa aaaaaaaaaa	62580
aacaagaagt tcaacttgaa gggaaaaatg ccgtattgtc tttccctttg ttatgtcacc	62640
agggcacagt ccatcccagg ctggcgctga tccacgggct ggagaggggc tgccccagaa	62700
gaggacatgc caggaagggc ttggctggtg ttcaggagcc caggccaggt caggtcaaga	62760
ggtgttgagg ctggacggga gaggccagct aggggctcat gtaggatatg aggggtcggc	62820
ccatttcaac gtggaaactg agctcttctg cttctctttc ttcttactg cattaagatt	62880
caataccgct tgggaagcag gtatttccct tcctataaag gatggttggg agcctgagtg	62940
ttgggagaaa gtgtagccgc tgagttacta acaactaggg ctgccgtcaa gcctatgggg	63000
aaagagagaa gaggacattt ggaaggagag agatcaagct gtggcaccct gggagaggac	63060
cacagaaaag aggccagtga gggggttccc cggtggcatc tgaagggtg gccaaccag	63120
gaggtccaga ggctgccagc cgagtggccc aggagaggga acctcacagg ggctgagtgg	63180
gaccaagcc ctatccaccg tcctaaccac ccacatttct cggaacaag acctcccaca	63240
gtggcctccc cggcagtgga aatagccaaa ctggcaacat ggactttctt caactgcccg	63300
ggcgatgctg cctcagtgcc ccagggcagg caggaagctc ccacacccat tctggaatga	63360
ggggttgagg gaaggctgag ctgagcaaag gacccatctc tgctctggtt ggtggggagg	63420
gagcccatta tacaagagac ccctcagggc tcagtgggg gtgacagaga cttggggagt	63480
agtggctgtc actgcagagg tgagaggggt tggagagaag gtacatgcct ttttggccac	63540
attgagtagc acctggtagc cagttagtaa cgtgtattgg ataaacaaaa gattaaacgg	63600
atgcaaaaaa aaatgttggc tttgcttctt tttacccaaa cctcagttcc ctcaagtaga	63660
ttctgggaac accccctacc tggtggact gttgtgaagt ttaaataagc caggttaact	63720
tcacctctc ctttaagaca cagctcagac actgcctcct ccaagaagcc ccctctggct	63780
tcctgtgtga atatgacggc cctctgggct ctagggtatc ttagaacaat gcttccttat	63840
ggctttggaa ccccgctgtc tcctggattg ggagcaaag caggggagga gccacacctg	63900
actaatctct gggctctcca gcacataagt ggcataaggg cagggtgtg cccgcttcag	63960
gcacttactg aaggatgtac ttggcagagg gtaggcagcc ggcggatgag cccctcactc	64020

tccccagctg actgcgtggg cgggaaaggc gggttcagga gaccagcct cctgggctg	64080
tcaccacctc tgcacatcca gccccattga tcaagggttc aatttttggg gtccgtgttg	64140
gaggccagga gactctctcc aggcacttct tccaggtctt tgtgttaggg tgtgtgtgtg	64200
tgtgtgtgtg tgtgtgtgtg tgtgtgtgtt gttttatattt atttatttat ttatttat	64260
atttatttat ttatttat ttgagacgag tctcgctctg ttgcccaggt tggagggtgg	64320
tggcatgac tcggctcact gcaagctccg cctcccgggt tcacgccatt ctccgtccctc	64380
actcttctctg agtagccgga ttacaggcgc acgcaccatg cctggctaata tattttgttt	64440
tttttagtaga gacagggttt cgccacgttg cccaggctgg tcttgaatcc ctggcctcaa	64500
gcgatccgcc cgctcagcc tcccaaagtg ctgggattac aggcgtgagc caccgtgccc	64560
gcccagccta ggggtacatg aaactttttt tttttttttt ttgagacaga gtttcactct	64620
gtccctcaggc tggagtgcag tggcgtgac tcggcgtact gcaatctccg cctcccgggt	64680
caagcgattc tcctgcctca gcctcccag tagctgggat tgcaggcacg cgccaccaca	64740
cccagctaata ttttgtattt ttagtagaga cgggctttca ccatgtggga caggatggtc	64800
tcgatctctt gacctcgtga tccgcccgc tcagcctccg aaagtgtctg gattacaggc	64860
ctgagccacc gtgcccagcc atgatgtttt gatacaggca tataacgtat aataatcaca	64920
tcagggtaaa tgatgtaacc atcacatcaa gcatttatcc tttgtgttac aaaaaaaaaat	64980
ctaattatac tttcctactt attctttttt tttttttttt ttgagacgga gtctccctca	65040
gtcgcacagg ctggagtgcg gtggcatgat ctcagttcac tgcaagctct gcctcctagc	65100
tctgcctcct gggttcatgc cattctctctg tctcagcctc gcgagtagct gggactacag	65160
gcgcctgcc cagtgcctgg ctaatttttt tttttgtatt tttggtagag acagggtttc	65220
accgtgttag ccaggatggc ctgatctcc tgacctcata atccgcccgt ctggcctcc	65280
caaagtgtg ggattacagg catgagccac cgccccagc ctatttatcc ttaaatgtac	65340
aataaattat tgttgactcc agtcacctg ctgtgctacc aaatacggat cttcttcatt	65400
ctatctaact gtattttctgt acctgttaac catctctctt ccacctcacc ccccaaacc	65460
actacccttc tcagcctctg gtaaccatcc ttctactctc tatctctatg agttcaattg	65520
tattaatttt tagctccccg gccgggcacg gtggctcacg cctgtaatcc cagcacttca	65580
ggaggctgag gcagggtgat cacgagggtca ggagtttgag accagcctgg ccaacatgg	65640
ggaaccccat ctctactaaa aacacaaaaa ttagctgggc gtgggtgggtg gcgctttag	65700
tcccagctac ttgggaggct gaggcaggag aatcgcttga aactgggagg cagagggtgc	65760

agtgagccaa gattgcgcca ctgcactcca gtctgggtga cagagtaaga ttccatcccg 65820  
 aaaaaaaaaa agtttagctc ccacaaataa gtgagaacac gtgaagtttc tttttctgtg 65880  
 cctcgcttgt ttcacttaac ataatgacct ccagttccat ccacgttggt gctttgttat 65940  
 aaatgacagg atcttggtca ggcgcagtg ctcagcctg taatcccagc actttgggag 66000  
 gctgaggtgg actgatcatg aggtcaagag atcgagacca tcctggctaa cacagtgaag 66060  
 ccccgctctc actaaaaata caagaaatta gccgggcgtg gtgggtggga cccatttccg 66120  
 ccccttctcg ggacgctgat gcacgacata ttacccatcc ccggaagact aatcctcccc 66180  
 cactctatat tgtacctctt cttttctcct ccacgcgatt ccccgagtaa cccgtcttcc 66240  
 ctccctctc ggattacgt cacccttccg cttcaatcac gttgctccgt ccccttcccc 66300  
 attcgtaacca ctctcactt tcgtcttctt acccccacta tccttttctg tcctctctat 66360  
 tccttactta ctctccccc ttctcttcat acttcattcc ctccgctctt cccactcgcg 66420  
 ctcccacttt caccagttg ccctcaccta cgttgccatc tcgcccctc ttcagctctc 66480  
 ggctctcac ccactgttc ttctctttac ctctctctc atctcgctca gacatctctc 66540  
 tagactatcc ctcactttac cttctcagtc gtcttcttcc tatccttctg tctccatgat 66600  
 cttcacgtcg ccactctttt tcgccccttt catatgtctc tcttcattgt ctcaactatca 66660  
 ttctcatgat cactatcggt ctcaactact atcaactccc tctttcttca tcaattctc 66720  
 tcgctattc tcgtctctct cttacaaccg ccttcttctg gctatctaac tcaacctgc 66780  
 ctctctact ctctctctat cgcctctcca tcgcttatgc atcctcttct attgcacacc 66840  
 cgcctctcca tcgcttatgc atcctcttct attgcacacc gccctccat cgcttatgca 66900  
 tcctcttcta ttgcacatcc tcttctattg cac 66933

<210> 12

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Artificial sequence is a primer.

<400> 12

ctgagcggaa ttcgtgagac c

<210> 13

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Artificial sequence is a primer.

<400> 13

ttggtctcac gtattccgct cga

23

<210> 14

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Artificial sequence is a primer.

<400> 14

ctcgagaatt ctggatcctc

20

<210> 15

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Artificial sequence is a primer.

<400> 15

ttgaggatcc agaattctcg ag

22

<210> 16

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Artificial sequence is a primer.

<400> 16

tgtatgcgaa ttcgctgcgc g

21

<210> 17

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Artificial sequence is a primer.

<400> 17

ttcgcgcagc gaattcgcat aca

23

<210> 18

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Artificial sequence is a primer.

<400> 18

gtccactgaa ttctcagtga g

21

<210> 19

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Artificial sequence is a primer.

<400> 19

ttgtcactga gaattcagtg gac

23

<210> 20

<211> 21



<212> DNA

<213> Artificial Sequence

<220>

<223> Artificial sequence is a primer.

<400> 20

gaatccgaat tcttggtcag c

21

<210> 21

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Artificial sequence is a primer.

<400> 21

ttgctgacca ggaattcgga ttc

23

<210> 22

<211> 33

<212> DNA

<213> Artificial Sequence

<220>

<223> Artificial sequence is a primer.

<400> 22

cuacuacuac uactgagcgg aattcgtgag acc

33

<210> 23

<211> 32

<212> DNA

<213> Artificial Sequence

<220>

<223> Artificial sequence is a primer.

<400> 23

cuacuacuac uactcgagaa ttctggatcc tc

32

<210> 24

<211> 33

<212> DNA

<213> Artificial Sequence

<220>

<223> Artificial sequence is a primer.

<400> 24

cuacuacuac uatgtatgcg aattcgctgc gcg

33

<210> 25

<211> 33

<212> DNA

<213> Artificial Sequence

<220>

<223> Artificial sequence is a primer.

<400> 25

cuacuacuac uagtccactg aattctcagt gag

33

<210> 26

<211> 33

<212> DNA

<213> Artificial Sequence

<220>

<223> Artificial sequence is a primer.

<400> 26

cuacuacuac uagaatccga attcctgggc agc

33

<210> 27

<211> 45

<212> DNA

<213> Artificial Sequence

<220>

<223> Artificial sequence is a primer.

<400> 27

aactggaaga attcgcggcc gcaggaattt tttttttttt ttttt

45

<210> 28

<211> 13

<212> DNA

<213> Artificial Sequence

<220>

<223> Artificial sequence is a primer.

<400> 28

aattcggcac gag

13

<210> 29

<211> 9

<212> DNA

<213> Artificial Sequence

<220>

<223> Artificial sequence is a primer.

<400> 29

ctcgtgccg

9

<210> 30

<211> 14

<212> DNA

<213> Artificial Sequence

<220>

<223> Artificial sequence is a primer.

<400> 30

gtacgacggc cagt

14

<210> 31

<211> 16

<212> DNA

<213> Artificial Sequence

<220>

<223> Artificial sequence is a primer.

<400> 31

aacagctatg accatg

16

<210> 32

<211> 18

<212> DNA

<213> Artificial Sequence

<220>

<223> Artificial sequence is a primer.

<400> 32

ccaagttctg agaagtcc

18

<210> 33

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Artificial sequence is a primer.

<400> 33

aatacctgaa accatacctg

20

<210> 34

<211> 57

<212> DNA

<213> Artificial Sequence

<220>

<223> Artificial sequence is a primer.

<400> 34  
agctgctcgt agctgtctct ccctggatca cgggtacatg tactggacag actgggt 57

<210> 35

<211> 56

<212> DNA

<213> Artificial Sequence

<220>

<223> Artificial sequence is a primer.

<400> 35  
tgagacgccc ggattgagcg ggcagggata gcttattccc tgtgccgcat tacggc 56

<210> 36

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<223> Artificial sequence is a primer.

<400> 36  
agctgctcgt agctgtctct ccctgga 27

<210> 37

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<223> Artificial sequence is a primer.

<400> 37  
gccgtaatgc ggcacagga ataagct 27

<210> 38

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Artificial sequence is a primer.

<400> 38

gagaggctat atccctgggc

20

<210> 39

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Artificial sequence is a primer.

<400> 39

acagcacgtg tttaaagggg

20

<210> 40

<211> 163

<212> DNA

<213> Homo sapiens

<400> 40

actaaagcgc cgccgccgcg ccatggagcc cgagtgaagt cggcgcgggc ccgtccggcc  
gccggacaac atggaggcag ctccgcccg ggcgcgctgg ccgctgctgc tgctgctgct  
gctgctgctg gcgctgtgct gctgcccgcc ccccgccgcg gcc

60

120

163

<210> 41

<211> 419

<212> DNA

<213> Homo sapiens

<400> 41

gccccacagc ctgcgcgctc ctgctatttg ccaaccgcgc ggacgtacgg ctggtggacg  
ccggcggagt caagctggag tccaccatcg tggtcagcgg cctggaggat gcggccgcag  
tggacttcca gttttccaag ggagccgtgt actggacaga cgtgagcgag gaggccatca  
agcagacctc cctgaaccag acggggggccg ccgtgcagaa cgtgggtcatc tccggcctgg  
tctctcccga cggcctcgcc tgcgactggg tgggcaagaa gctgtactgg acggactcag  
agaccaaccg catcgagggt gccaacctca atggcacatc ccggaagggt ctcttctggc  
aggaccttga ccagccgagg gccatcgccct tggaccccgcc tcacgggtaa accctgctg

60

120

180

240

300

360

419

&lt;210&gt; 42

&lt;211&gt; 221

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 42

ccccgtcaca	ggtacatgta	ctggacagac	tggggtgaga	cgccccggat	tgagcgggca	60
gggatggatg	gcagcaccgc	gaagatcatt	gtggactcgg	acatttactg	gcccattgga	120
ctgaccatcg	acctggagga	gcagaagctc	tactgggctg	acgccaagct	cagcttcac	180
caccgtgcc	acctggacgg	ctcgttcgg	taggtacca	c		221

&lt;210&gt; 43

&lt;211&gt; 221

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 43

tccctgactg	caggcagaag	gtgggtggagg	gcagcctgac	gcaccccttc	gccctgacgc	60
tctccgggga	cactctgtac	tggacagact	ggcagaccgc	ctccatccat	gcctgcaaca	120
agcgactgg	ggggaagagg	aaggagatcc	tgagtgcct	atactaccc	atggacatcc	180
aggtgctgag	ccaggagcgg	cagccttttt	gtgagtgcg	g		221

&lt;210&gt; 44

&lt;211&gt; 156

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 44

tttctcagtc	cacactcgct	gtgaggagga	caatggcggc	tggccccacc	tgtgcctgct	60
gtccccaagc	gagccttttt	acacatgcgc	ctgccccacg	ggtgtgcaga	tgcaggacaa	120
cggcaggacg	tgtaaggcag	gtgaggcggg	gggacg			156

&lt;210&gt; 45

&lt;211&gt; 416

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 45

ctccacagga	gccgaggagg	tgctgctgct	ggccccggcg	acggacctac	ggaggatctc	60
gctggacacg	ccggacttca	ccgacatcgt	gctgcagggtg	gacgacatcc	ggcacgccat	120
tgccatcgac	tacgaccgc	tagagggcta	tgtctactgg	acagatgacg	aggtgcgggc	180
catccgcagg	gcgtacctgg	acgggtctgg	ggcgagacg	ctggtcaaca	ccgagatcaa	240

cgaccccgat	ggcatcgcg	tcgactgggt	ggcccgaac	ctctactgga	ccgacacggg	300
cacggaccgc	atcgagggtga	cgcgcctcaa	cggcacctcc	cgcaagatcc	tgggtgtcgga	360
ggacctggac	gagccccgag	ccatcgcact	gcaccccggtg	atggggtaag	acgggc	416

&lt;210&gt; 46

&lt;211&gt; 198

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 46

ttctttctcca	gcctcatgta	ctggacagac	tggggagaga	accctaaaat	cgagtgtgcc	60
aacttggatg	ggcaggagcg	gcgtgtgctg	gtcaatgcct	ccctcgggtg	gccccacggc	120
ctggccctgg	acctgcagga	ggggaagctc	tactggggag	acgccaagac	agacaagatc	180
gaggtgaggg	tcctgtgg					198

&lt;210&gt; 47

&lt;211&gt; 244

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 47

ccgtcctgca	ggtgatcaat	gttgatggga	cgaagaggcg	gaccctcctg	gaggacaagc	60
tccgcacat	tttcgggttc	acgctgctgg	gggacttcat	ctactggact	gactggcagc	120
gccgcagcat	cgagcgggtg	cacaagggtca	aggccagccg	ggacgtcatc	attgaccagc	180
tgcccgacct	gatggggctc	aaagctgtga	atgtggccaa	ggtcgtcggg	gagtcggggg	240
ggtc						244

&lt;210&gt; 48

&lt;211&gt; 313

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 48

gttcgcttcc	aggaaccaac	ccgtgtgcgg	acaggaacgg	ggggtgcagc	cacctgtgct	60
tctgcacacc	ccacgcaacc	cgggtgtggct	gccccatcgg	cctggagctg	ctgagtgcaca	120
tgaagacctg	catcgtgcct	gaggcctttt	tggctcttcac	cagcagagcc	gccatccaca	180
ggatctccct	cgagaccaat	aacaacgacg	tggccatccc	gtcacggggc	gtcaaggagg	240
cctcagccct	ggactttgat	gtgtccaaca	accacatcta	ctggacagac	gtcagcctga	300
aggtagcgtg	ggc					313

&lt;210&gt; 49

&lt;211&gt; 255

&lt;212&gt; DNA



<213> Homo sapiens

<400> 49

cctgctgcca	gaccatcagc	cgcgcccttca	tgaacgggag	ctcgggtggag	cacgtgggtgg	60
agtttggcct	tgactacccc	gagggcatgg	ccgttgactg	gatgggcaag	aacctctact	120
gggccgacac	tgggaccaac	agaatcgaag	tggcgcggtg	ggacgggcag	ttccggcaag	180
tcctcgtgtg	gagggacttg	gacaaccgga	ggtcgctggc	cctggatccc	accaaggggt	240
aagtgtttgc	ctgtc					255

<210> 50

<211> 210

<212> DNA

<213> Homo sapiens

<400> 50

gtgccttcca	gctacatcta	ctggaccgag	tggggcggca	agccgaggat	cgtgcggggc	60
ttcatggacg	ggaccaactg	catgacgctg	gtggacaagg	tgggccgggc	caacgacctc	120
accattgact	acgctgacca	gcgcctctac	tggaccgacc	tggacaccaa	catgatcgag	180
tcgtccaaca	tgctgggtga	gggcccgggt				210

<210> 51

<211> 352

<212> DNA

<213> Homo sapiens

<400> 51

gtgttcatgc	aggtcaggag	cgggctcgtg	ttgccgacga	tctcccgcac	ccgttcggtc	60
tgacgcagta	cagcgattat	atctactgga	cagactggaa	tctgcacagc	attgagcggg	120
ccgacaagac	tagcgggccg	aaccgcaccc	tcattccagg	ccacctggac	ttcgtgatgg	180
acatcctggt	gttccactcc	ttccgccagg	atggcctcaa	tgactgtatg	cacaacaacg	240
ggcagtgtgg	gcagctgtgc	cttgccatcc	ccggcggcca	ccgctgcggc	tgcgcctcac	300
actacaccct	ggaccccagc	agccgcaact	gcagccgtaa	gtgcctcatg	gt	352

<210> 52

<211> 225

<212> DNA

<213> Homo sapiens

<400> 52

gcctctctta	cgcccaccac	cttcttgctg	ttcagccaga	aatctgccat	cagtcggatg	60
atcccgagcg	accagcacag	cccggatctc	atcctgcccc	tgcattggact	gaggaaacgtc	120
aaagccatcg	actatgaccc	actggacaag	ttcatctact	gggtggatgg	gcgccagaac	180
atcaagcgag	ccaaggacga	cgggacccag	gcaggtgccc	tgtgg		225

&lt;210&gt; 53

&lt;211&gt; 235

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 53

ctttgtctta	cagccctttg	ttttgacctc	tctgagccaa	ggccaaaacc	cagacaggca	60
gccccacgac	ctcagcatcg	acatctacag	ccggacactg	ttctggacgt	gcgaggccac	120
caataccatc	aacgtccaca	ggctgagcgg	ggaagccatg	ggggtggtgc	tgcgtgggga	180
ccgcgacaag	cccagggcca	tcgtcgtcaa	cgcggagcga	gggtaggagg	ccaac	235

&lt;210&gt; 54

&lt;211&gt; 218

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 54

ccaccctccc	gcaggtacct	gtacttcacc	aacatgcagg	accgggcagc	caagatcgaa	60
cgcgcagccc	tggacggcac	cgagcgcgag	gtcctcttca	ccaccggcct	catccgccct	120
gtggccctgg	tgggtggaaa	cacactgggc	aagctgttct	gggtggacgc	ggacctgaag	180
cgcattgaga	gctgtgacct	gtcaggtacg	cgcctccgg			218

&lt;210&gt; 55

&lt;211&gt; 234

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 55

ggctgcttgc	aggggccaac	cgctgaccc	tggaggacgc	caacatcgtg	cagcctctgg	60
gcctgaccat	ccttggcaag	catctctact	ggatcgaccg	ccagcagcag	atgatcgagc	120
gtgtggagaa	gaccaccggg	gacaagcgga	ctcgcatcca	gggccgtgtc	gcccacctca	180
ctggcatcca	tgcagtggag	gaagtcagcc	tggaggagtt	ctgtacgtgg	gggc	234

&lt;210&gt; 56

&lt;211&gt; 157

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 56

ttgtctttgc	agcagcccac	ccatgtgccc	gtgacaatgg	tggctgctcc	cacatctgta	60
ttgccaaagg	tgatgggaca	ccacgggtgt	catgcccagt	ccacctcgtg	ctcctgcaga	120
acctgctgac	ctgtggaggt	aggtgtgacc	taggtgc			157

&lt;210&gt; 57

&lt;211&gt; 272

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 57

gttctcctct	gtccctcccc	cagagccgcc	cacctgctcc	ccggaccagt	ttgcatgtgc	60
cacaggggag	atcgactgta	tccccggggc	ctggcgctgt	gacggctttc	ccgagtgcga	120
tgaccagagc	gacgaggagg	gctgccccgt	gtgctccgcc	gcccagttcc	cctgcgcgcg	180
gggtcagtgt	gtggacctgc	gcctgcgctg	cgacggcgag	gcagactgtc	aggaccgctc	240
agacgaggtg	gactgtgacg	gtgaggccct	cc			272

&lt;210&gt; 58

&lt;211&gt; 134

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 58

tctccttgca	gccatctgcc	tgcccaacca	gttccggtgt	gcgagcggcc	agtgtgtcct	60
catcaaacag	cagtgcgact	ccttccccga	ctgtatcgac	ggctccgacg	agctcatgtg	120
tggtgagcca	gctt					134

&lt;210&gt; 59

&lt;211&gt; 274

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 59

gtttgtctct	ggcagaaatc	accaagccgc	cctcagacga	cagcccggcc	cacagcagtg	60
ccatcgggcc	cgtcattggc	atcactctct	ctctcttcgt	catgggtggg	gtctattttg	120
tgtgccagcg	cgtggtgtgc	cagcgctatg	cggggggcaa	cgggcccttc	ccgcacgagt	180
atgtcagcgg	gaccccgcac	gtgccccctc	atttcatagc	cccggggcgg	tcccagcatg	240
gccccctcac	aggtaaaggag	cctgagatat	ggaa			274

&lt;210&gt; 60

&lt;211&gt; 164

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 60

cttccctgcc	aggcatcgca	tgcggaaagt	ccatgatgag	ctccgtgagc	ctgatggggg	60
gccggggcgg	ggtgccccct	tacgaccgga	accacgtcac	aggggcctcg	tccagcagct	120

cgtccagcac gaaggccacg ctgtacccgc cggtagggg cggg

164

<210> 61

<211> 130

<212> DNA

<213> Homo sapiens

<400> 61

ttggctctcc	tcagatcctg	aaccgcgcgc	cctccccggc	cacggacccc	tcctgtaca	60
acatggacat	gttctactct	tcaaacattc	cggccactgc	gagaccgtac	aggtaggaca	120
tcccctgcag						130

<210> 62

<211> 496

<212> DNA

<213> Homo sapiens

<400> 62

tcaaacattc	cggccactgc	gagaccgtac	aggccctaca	tcattcgagg	aatggcgccc	60
ccgacgacgc	cctgcagcac	cgacgtgtgt	gacagcgact	acagcgccag	ccgctggaag	120
gccagcaagt	actacctgga	tttgaactcg	gactcagacc	cctatccacc	cccaccacg	180
ccccacagcc	agtacctgtc	ggcggaggac	agctgcccgc	cctcgcccgc	caccgagagg	240
agctacttcc	atctcttccc	gccccctccg	tccccctgca	cggactcatc	ctgacctcgg	300
ccggggccact	ctggcttctc	tgtgccccctg	taaatagttt	taaatatgaa	caaagaaaaa	360
aatatatattt	atgattttaa	aaataaatat	aattgggatt	ttaaaaacat	gagaaatgtg	420
aactgtgatg	gggtgggcag	ggctggggaga	actttgtaca	gtggagaaat	atttataaac	480
ttaattttgt	aaaaca					496